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British House Building Methods.

By Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., M.S.A.

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SIR CHARLES·T·RUTHEN F.R.I.B.A
CHARLES·W MERCER M.S.A
Architects

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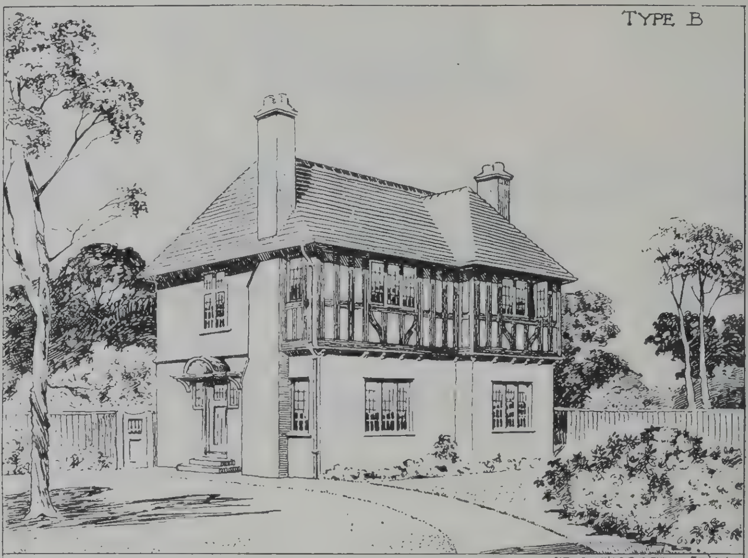

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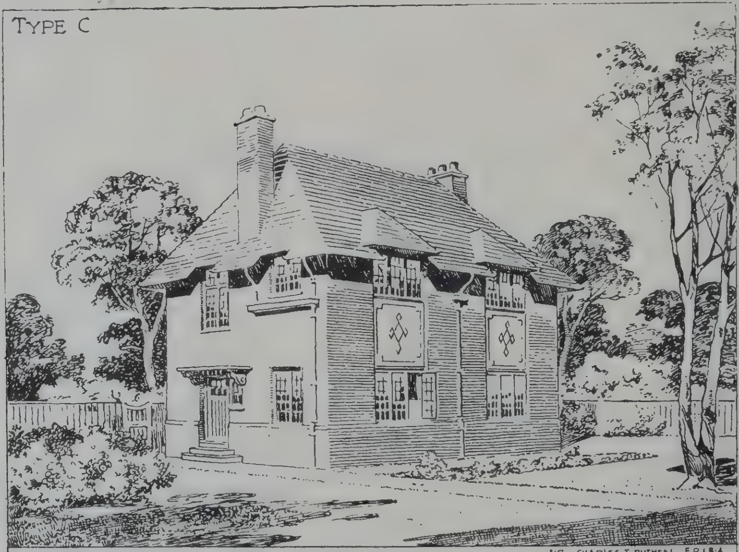


COTTAGE at NEWTON MVMBLES S·WALES

SIR CHARLES T·RUTHEN F·R·I·B·A
CHARLES W MERCER M·S·A
Architects

British House Building Methods.

Shall they remain as in the days before the Great War, or must new methods be adopted?

By Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., M.S.A.

(Hon. Examiner and Senior Vice-President of The Society of Architects).

PRELIMINARY.

In the days preceding the dark days of August, 1914, the housing problem was considered and discussed in the light of the regular and stereotyped British fashion in house building, and he would have been bold indeed who would have suggested a breaking-away from the orthodox in the provision of homes for the people.

The mediums for house building in those days were stone, bricks and terra cotta, and during the latter days, concrete ; and the bare suggestion that timber should be utilised for the main body of the structure was never so much as whispered by the most ardent reformer.

The vital urgency and the crying need for rapidity of solution were fully grasped only by the student, who alone appreciated the character, immensity, and complexity of the problem.

It must be generally admitted that the history of the world, in some matters, moves but a day in some centuries, yet at other times, the history of the world moves centuries in a day. In pre-war days the history of the British Isles in the matter of housing the people moved but a day in generations ; but since the outbreak of the great world-struggle, history in the matter of housing has moved, as it were, generations in a day.

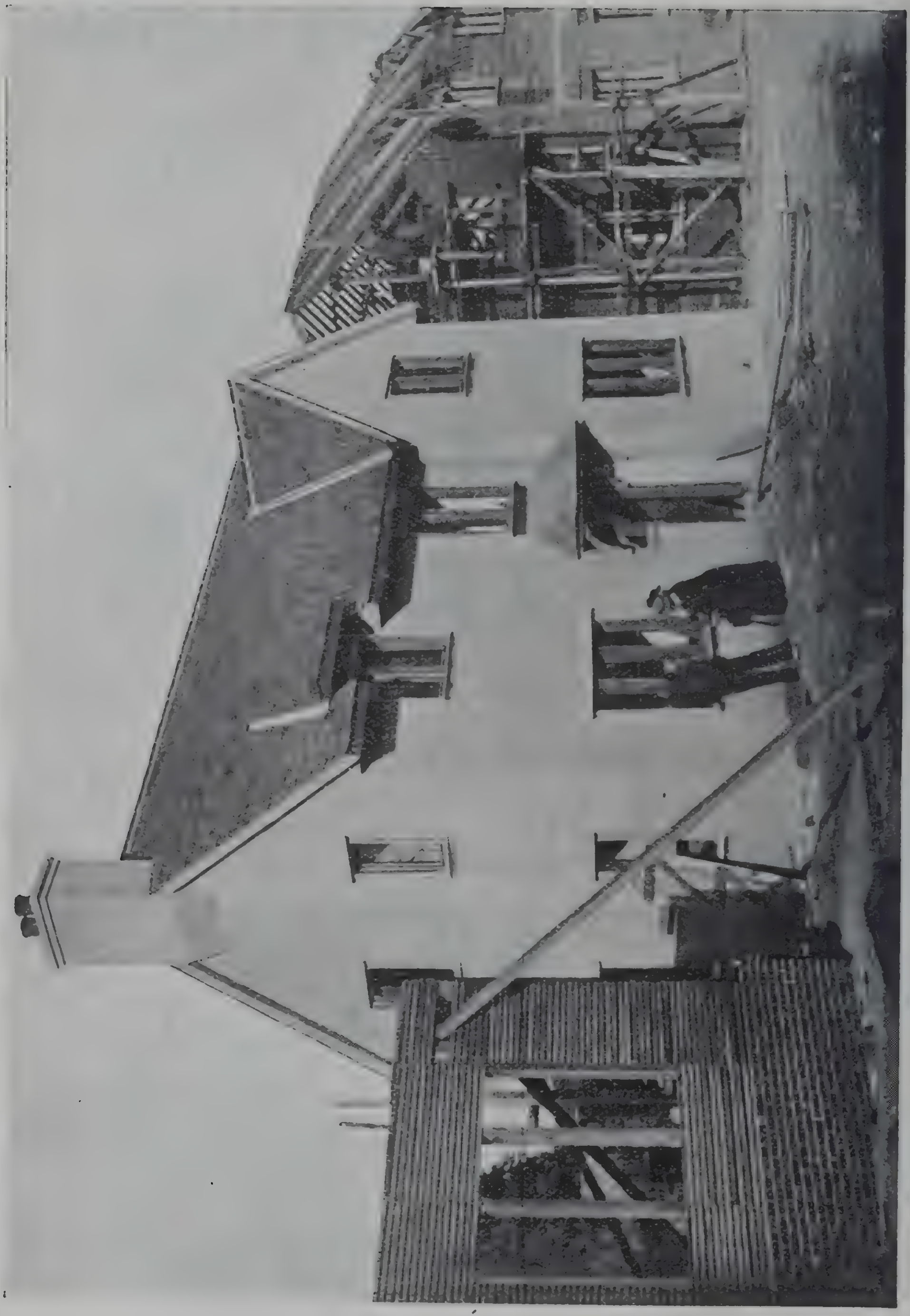
In other matters, the history of the world has moved centuries in a short period of five years, but my duty at the moment is to deal only with the matter of housing.

INTRODUCTION.

A few words upon the gigantic character of the housing problem as now presented to the peoples of the British Isles.

The question generally of the shortage of housing accommodation in this country, before the outbreak of the war, has been put forward during the years preceding that great world calamity by able exponents of the evils of defective housing and of overcrowding. It is, therefore, only necessary for me, incidentally, to touch upon that phase of the problem.

It will be, of course, appreciated that the complete cessation of house building for the period 1915 to 1918 has produced what can only be described as a disastrous state of affairs.



Newton Houses. View of Commencement of Type B, with Type A in Centre and Type C on the Right.

The normal supply of houses in pre-war days in England and Wales (taking the period 1900 to 1910 as a normal period), of less value than £20 per annum, it is recorded was 80,000 per annum. Adopting this figure as representing the minimum number of houses which should be built per annum to provide for the growth of the population (as distinct from the number of houses required to be built to re-house overcrowded persons and persons dispossessed from houses unfit for human habitation), then the accumulated deficiency for the years 1915, 1916, 1917 and 1918 must be reckoned at the end of 1918, as 320,000.

The armistice was signed on 11th November, 1918, and although eleven months have passed, and the entire resources of the State have been directed towards the solution of the difficulty, certainly not more than 10,000 houses are to-day in various stages of progress, and it would appear generous to suggest that by the end of this year not more than 6,000 houses will be ready for occupation.

We are, therefore, faced with the position that at the end of this year the total number of houses required to make up the normal supply will be 394,000.

Again, making the very generous estimate that it will take five years in which to recover the accumulated shortage produced by five years dislocation of the building industry, it is obvious that a further 400,000 houses will be required, or a total of 794,000 houses, by the end of 1924.

These figures show that during the next five years it will be necessary that 158,800 houses shall be erected per annum, if the housing problem is to be placed in exactly the self-same position as it was in 1914.

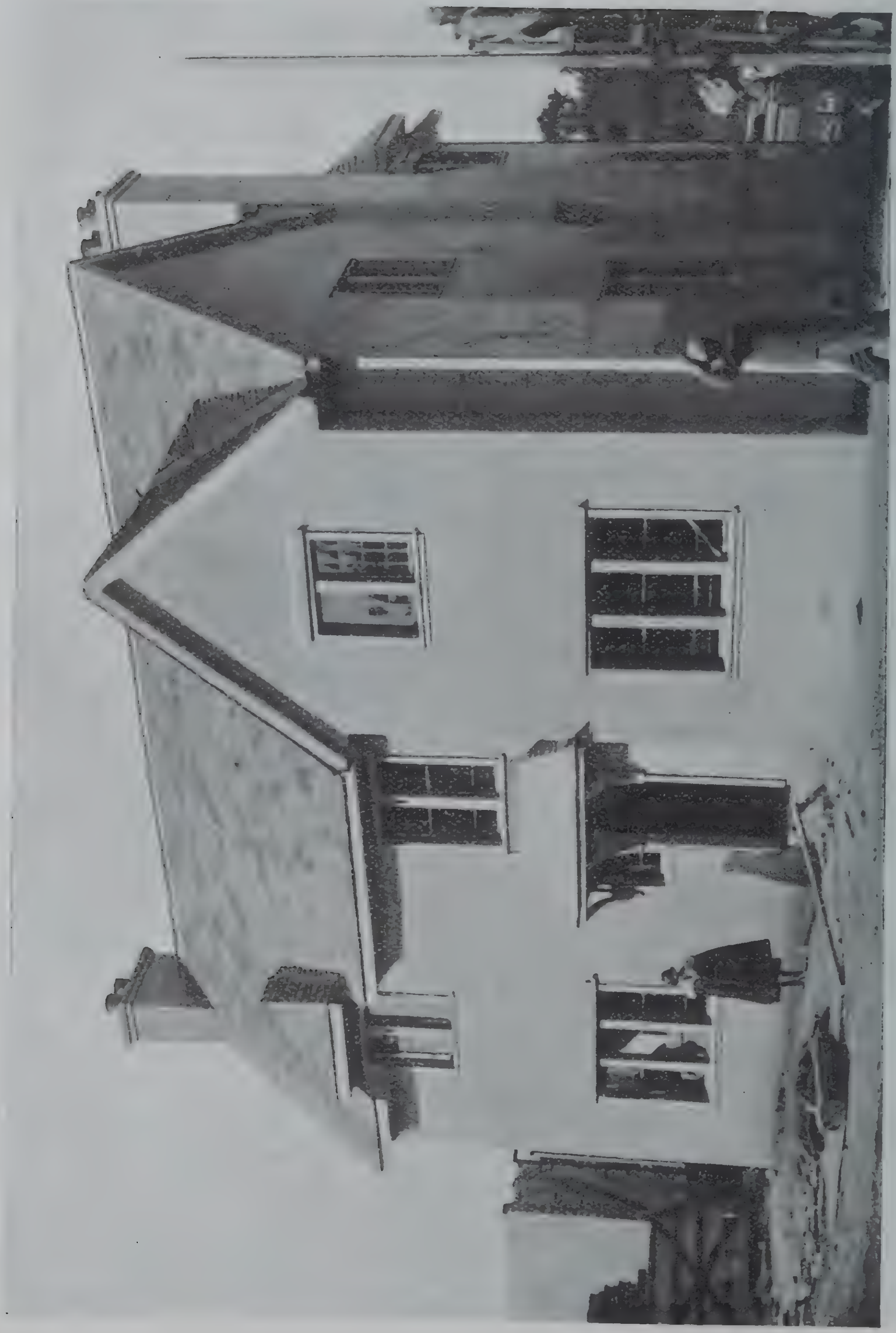
It cannot be suggested that I am overdoing my presentation of the present grave position, if I refer shortly to the serious and pressing problems handed down from the years of neglect preceding the outbreak of the war. These problems must, I fear, be left unremedied in the meantime, for it is impossible to destroy the slums and condemn unsuitable dwellings until better housing accommodation is available for the de-housed persons.

I think, however, that in order that the whole problem may be faced boldly, the actual shortage of housing accommodation existing in 1914 should be considered. If this be done, to the enormous total of 794,000 must be added at least 250,000 as being the minimum figures representing the actual accumulated deficiency due in pre-war days to the failure of the supply to meet the demand.

It is beyond question that the number of houses built annually for very many years before the war did not suffice to meet the normal needs of the population, with the result that, prior to the war, the shortage of suitable housing accommodation was fixed by authorities upon the subject at quite 400,000, of which number 120,000 were for rural districts.

Accepting, however, the quarter million before stated, and without considering the question of the slums and unsuitable dwellings, we must, I think, accept the proposition that if the housing problem is to be handled in any degree satisfactorily during the next five years, a grand total of 1,044,000 houses must be erected, or well over 200,000 per annum. In other words, 2½ times the normal pre-war supply, when all agencies were at work to provide houses for the people.

I need scarcely draw attention to the fact that pre-war building agencies are all or nearly all at the moment " out of the field," so that unless matters alter, the provision of houses must be left in the hands of the State, Local Authorities, Public Utility Societies and similar agencies.



Newton Houses. View of Type A.

Calculating that 25,000 bricks are required per house, it will be seen that 5,000,000,000 will be required per annum (or an equivalent of some other material) to cope with this problem within the period mentioned. Further, it must be pointed out that the building industry is the third greatest industry in the United Kingdom, and no less that 903,202 workmen in England, Scotland and Wales were employed in it.

If, therefore, the normal supply of houses in pre-war days was 80,000 per annum, and if it is admitted that other important industrial work is to be undertaken during the coming five years, I cannot see that it is possible for the ordinary resources of the country to be equal to the colossal demand of 200,000 houses per annum.

In a Government report issued not long ago, it was stated that if 300,000 cottages were to be erected within the first year after the war (I think it is now appreciated that such a performance is quite impossible), 5,431,380,148 bricks would be required.

Assuming that 25,000 bricks are required to build a house containing what is now considered the minimum accommodation, and that approximately that average number were used per house in pre-war days. Then the normal supply in pre-war days (80,000 houses) would be 2,000,000,000 bricks.

Another Government report provides the following interesting information with reference to the output of bricks, viz. ;—

Approximate production of bricks in 1917	1,052,246,000
Average annual output for years 1911-12-13	2,805,748,000
Estimated maximum output with existing plant, provided sufficient labour is available	3,985,636,000

It will, therefore, be seen that this latter figure is approximately 1,000,000,000 short of the number of bricks required to build 200,000 houses per annum, calculating that an average of 25,000 bricks will be required to erect each house.

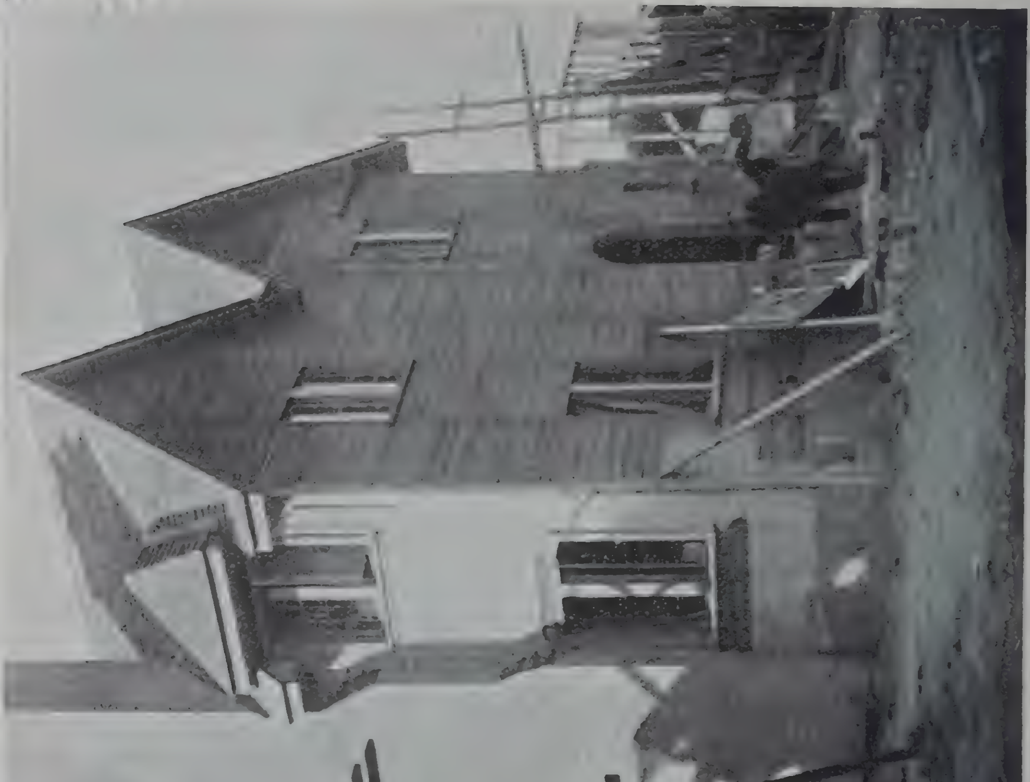
All other work must cease for the time being, or 2½ times the number of workmen engaged in pre-war days upon house building must be found to meet the demand. Even if bricks, stone, concrete and other similar material were produced, I feel convinced, particularly with the experience of the past eleven months, that fifteen, if not twenty years will be required before the housing shortage will be overtaken.

Is it in the interests of the State? I put it still higher. Will the fabric of the State stand the strain of popular feeling, if even five years must elapse before this vital problem is solved?

Let us consider for a moment the effect of the housing conditions in this country to-day. I think my figures of 644,000 must be accepted as the present deficiency of houses for the people. That is to say, 394,000 (to the end of 1919), due to the dislocation of the building industry, added to 250,000, the shortage before the outbreak of the war. Then place side by side with this statement, the allied one, that the average size of a family in this country is five persons—4·99 to be exact, and we find that 3,220,000 persons, one-thirteenth of the population of England and Wales, are improperly housed. In addition, it must be pointed out that certainly 7,000,000 persons are living in tenements of three rooms and less.

We have therefore presented the appalling fact that more than one quarter of the population are, in the light of modern education and thought, improperly housed.

I repeat, will the fabric of the State stand the strain very much longer?



Newton Houses. View of Rear of Type A and Part of Type C.

I do not propose in this paper to deal with the effects of defective housing conditions upon the national life, industrial and economic. That the effects are disastrous and cumulative I think is admitted by persons of all shades of political and social opinion.

I have just recently been looking up some facts in connection with housing, and I came across the statement that "the provision of houses, like the provision of other articles, is a business proposition." This sentence, which it is only fair to state was written before the war, sums up the entire position, and the slow but certain piling up of arrears in the supply of homes for the people has been due to this argument. The argument is in part correct, and in part it is incorrect.

Workhouses have been built to house people, but not all people; asylums and jails have been built to house people, but, thank goodness, not all people; yet both are "business propositions."

In the broad sense it may be argued that the establishment and maintenance of such institutions are financial propositions, if not business propositions, in the sense meant by the writer of the sentence above quoted.

The provisions of a pure water supply and a good drainage system are also business propositions, and from the community point of view good investments.

All these arguments suggest that there are duties that should be undertaken by the community, and leave it to be assumed that there are others that may be undertaken by private enterprise.

It is now open to very little doubt that in the matter of housing there has been for at least twenty years or more a duty which has been consistently shirked by the community, and the argument that such work was not the duty of the local authority was advanced in support of the contention that the provision of houses was a "business proposition," and as such should not be undertaken by the community.

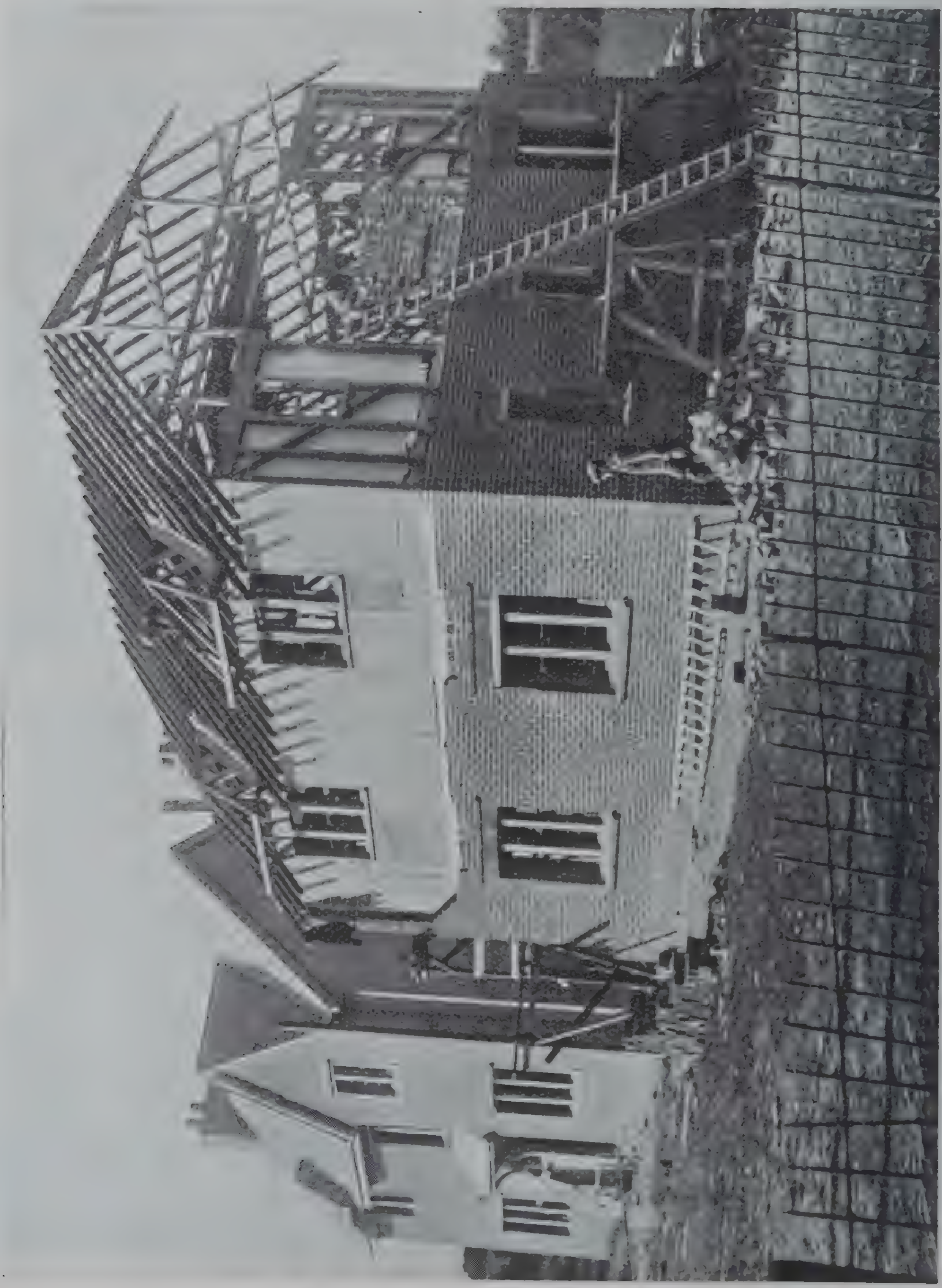
I have contended for many years that the provision of good healthy homes for the people, those particularly for whom private enterprise did not, and in fact could not, cater, was in the highest sense a business proposition, but unfortunately there has always been too much book-keeping and too little humanity in the community management of affairs.

To-day we are suffering for this hopeless lack of broad vision, and we find now that what a few paltry years ago was looked upon as being the especial preserve of private enterprise, has floated irresistibly into the realm of community duty, and, from the narrow pre-war actuarial point of view, into a hopeless "business proposition." Yet in the national sense one of the greatest business propositions from a real investment point of view with which this country has ever before been faced.

For most things that are required we rely and have relied, and rightly so, upon the law of supply and demand. It has always been found that if there is a demand for an article, a supply is almost always forthcoming. In many cases the supply has been actually greater than the demand.

One is naturally inclined to demand explanation why this law does not successfully operate in regard to houses. Why do not men, and why have not men, come forward and provided houses as others have provided boots, clothes, watches, toys and other things?

We must look for an answer to the law of political economy. Demand means demand at a price, and likewise supply means supply at a price.



Newton Houses. Full View of Construction of Type C, Shewing also Type A Adjoining.

There is and has been a great supply of boots and other articles, but it has been a supply at a certain price, and this price is and has been something more than the cost of production.

The real demand has never been for houses, but for houses at a certain price, and good houses could not be provided at that price.

For houses at the price at which they could be built there was only a limited demand, and in this way the original difficulty was created, and events during the last five years have considerably accentuated that difficulty.

HOUSE BUILDING METHODS.

The problem with which this country to-day is faced is of such magnitude that it would appear that the law of political economy, as understood by the average individual, has, in a sense, to be thrown into the waste paper basket.

The law of supply and demand in the pre-war sense is dead. The demand for houses is gigantic, and the supply is nil. The demand for houses is not at a price above the cost of production, but at a price far below the cost of production; hence the absence of the supply.

The demand for houses, however, has to be met, and met with rapidity. The supply of good houses must be greater than ever known in the history of this country, if consequences of a grave national character are to be avoided.

The present position is rendered the more difficult on account of the fact that men have been educated, and women also, during the past ten years up to a better standard of house planning and construction. The enormous shortage of houses is, in the light of present-day educated opinion, a shortage of "good" houses. What is demanded now is not a rapid supply of dwellings containing the irreducible minimum of accommodation and of quality, but "homes" in which there is room, physical and mental room, for some of the graces and the amenities of life.

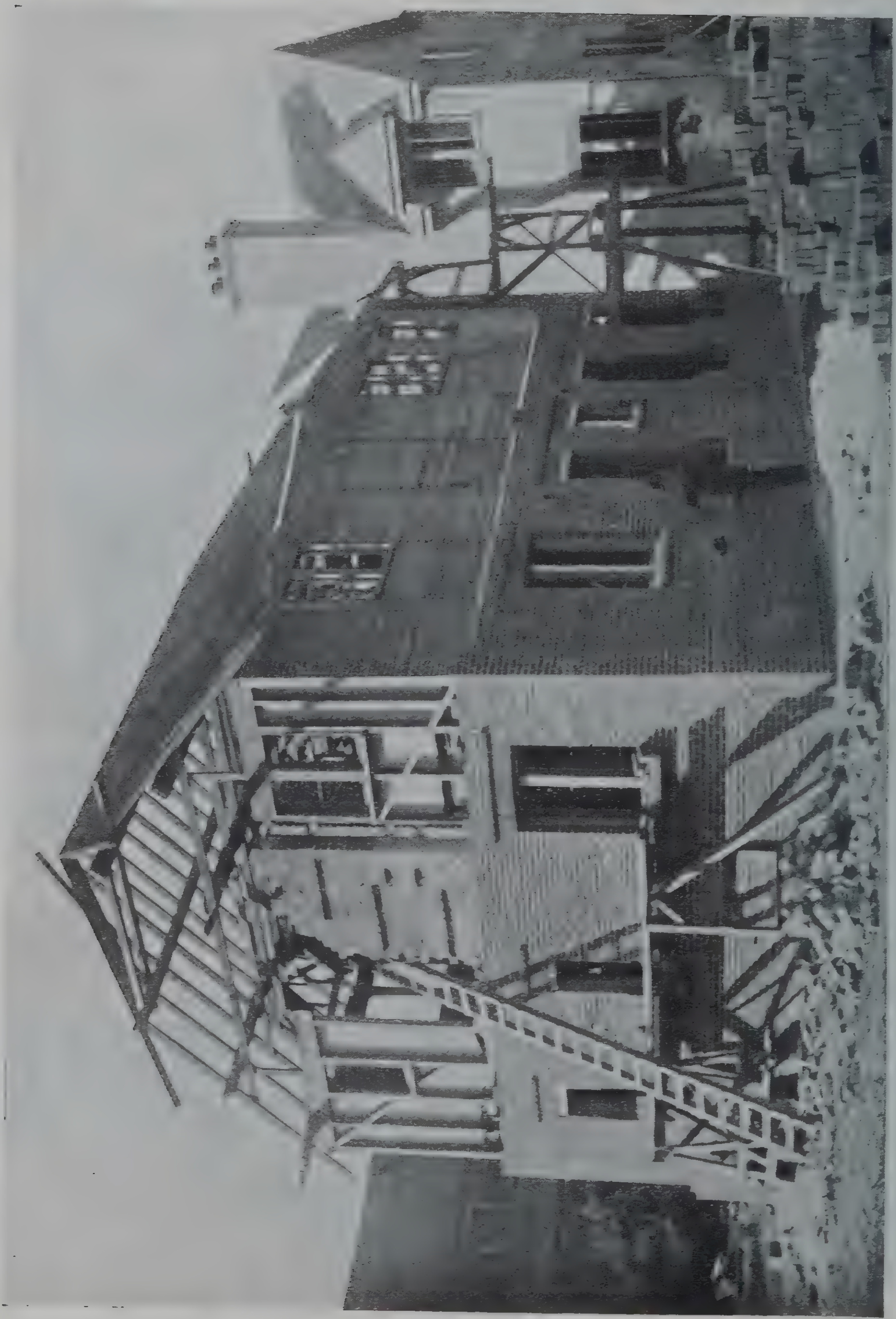
The law of political economy in pre-war days would teach that the building of houses to let at an uneconomic rent was unsound. Yet the same law would uphold the erection and maintenance of the great public institutions and claim these as a proper public service.

Political economy was right if and when the individual citizen was able to provide for himself, either alone or by the aid of private enterprise. When, however, the individual ceased to be in that position, the satisfaction of his needs in the matter of housing became a public service, and he became to an extent a charge upon the community at large, partially if not wholly.

In view of the statements contained in the preliminary and introductory portions of this paper, and the apparent utter impossibility of solving the problem of housing by pre-war methods and with pre-war materials, it becomes in my opinion necessary to conduct a critical examination into British house building methods, with a view to arriving at a rapid and if possible satisfactory decision upon the various essentials in connection with all methods.

Whereas in pre-war times the essentials, I imagine, would be ranged in the following order, viz.:—

(*a*) Quality of building.
(*b*) Cost.
(*c*) Speed.



Newton Houses. View of Rear and End of Type C.

It is now necessary, I would suggest, if a grave national calamity is to be avoided, to range these essentials in quite a different order, viz.:—

(*a*) Speed in construction.
(*b*) Weather-proof qualities.
(*c*) Stability of structure.
(*d*) Lasting qualities.
(*e*) Cost.

English homes, that is to say the real old homes of England, have been and are, in fact, looked upon as the finest examples of domestic architecture in the world, and the real old cottage homes of our country are difficult to surpass in beauty and home-like character.

The art of home-building seems, however, to have been lost when the demands of industry called for dwellings for the great and increasing army of workers in these isles.

The materials that produced the homes of old England appear to have resented their application to the skeleton structures of modern times. The stone walls as erected generations ago stand to-day as monuments of good house building. The materials, so far as the stone was concerned, were the same as used to-day. Perhaps, and there is little doubt, the mortar was superior to that of modern times, but the workmanship was undoubtedly better and the mass more solid, and therefore capable of withstanding the damp atmospheric conditions of our island home and of resisting the stress of ages.

The relentless call of that law of political economy brought about a continuing reduction in the body of the structure and the quality of the workmanship, and the same law demanded the curtailment of the land to be covered.

The result has been that, although we may pride ourselves upon our "stone" or "brick" houses, in very many important industrial and other areas "dry" homes are really scarcely known.

Few of the ordinary dwellings of the people erected during the last generation or two will outlast the usual leasehold tenure, and for the latter half of that tenure, in many cases, a continual outlay is required annually if the structures are to remain habitable.

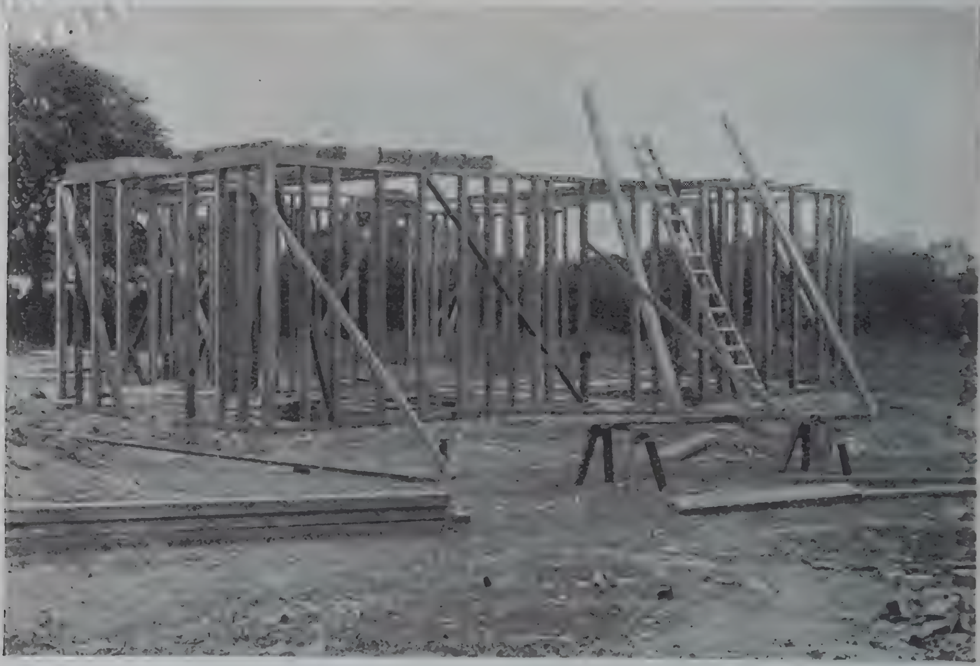
The knowledge that the ground landlord may at any time during the last quarter of the tenure serve a formidable schedule of dilapidations is a veritable nightmare to many a lessee, and almost effectually prevents a sale of the property within the period named, excepting at an almost nominal figure.

The main difficulties in the way of the solution of the present grave problem of housing shortage may, I think, be tabulated under three distinct heads, viz.:—

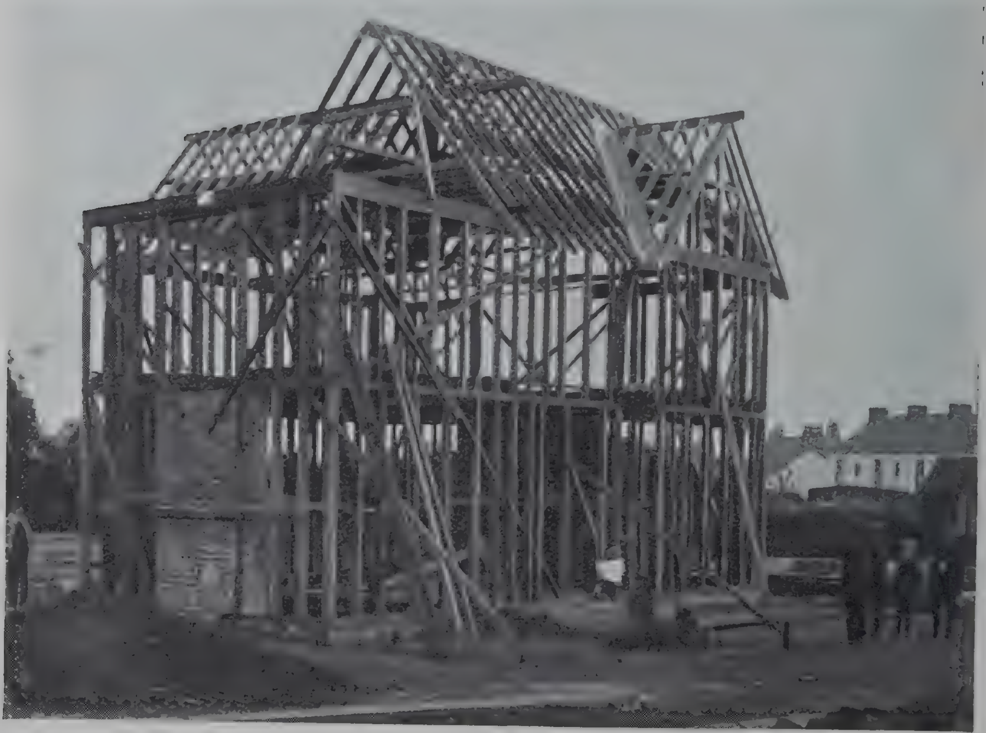
(*a*) The well recognised slow progress of building according to ordinary British methods.

(*b*) The proved incapacity of existing agencies to provide the necessary labour and materials, so that the work may be undertaken in a sufficiently comprehensive and rapid fashion.

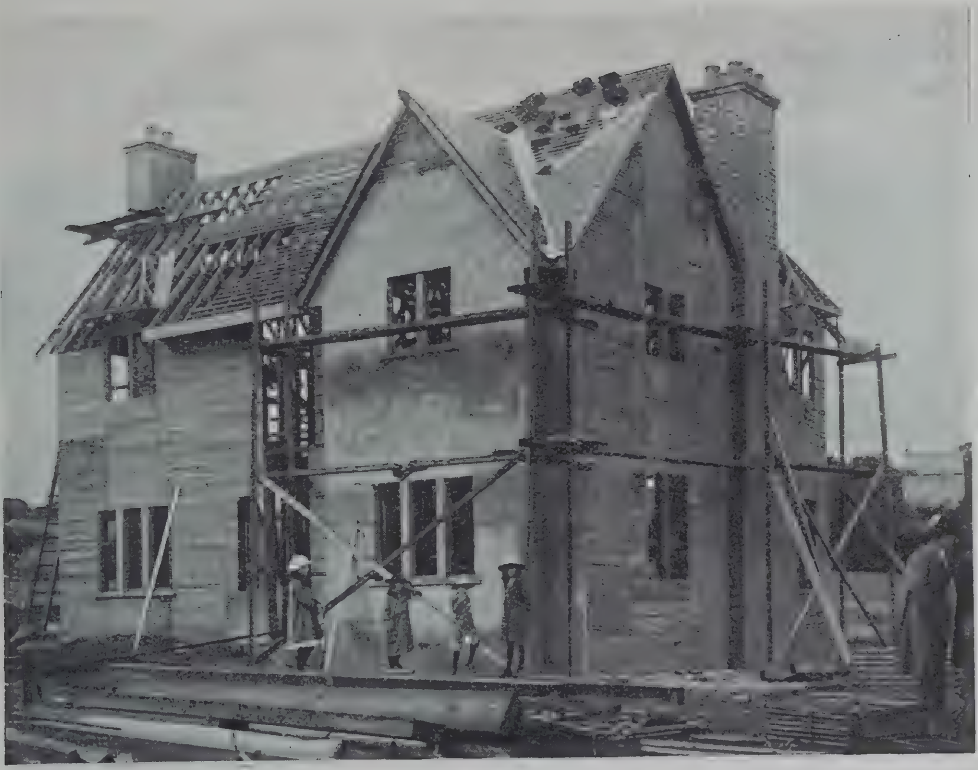
(*c*) The increasing costs of old-fashioned British building methods.



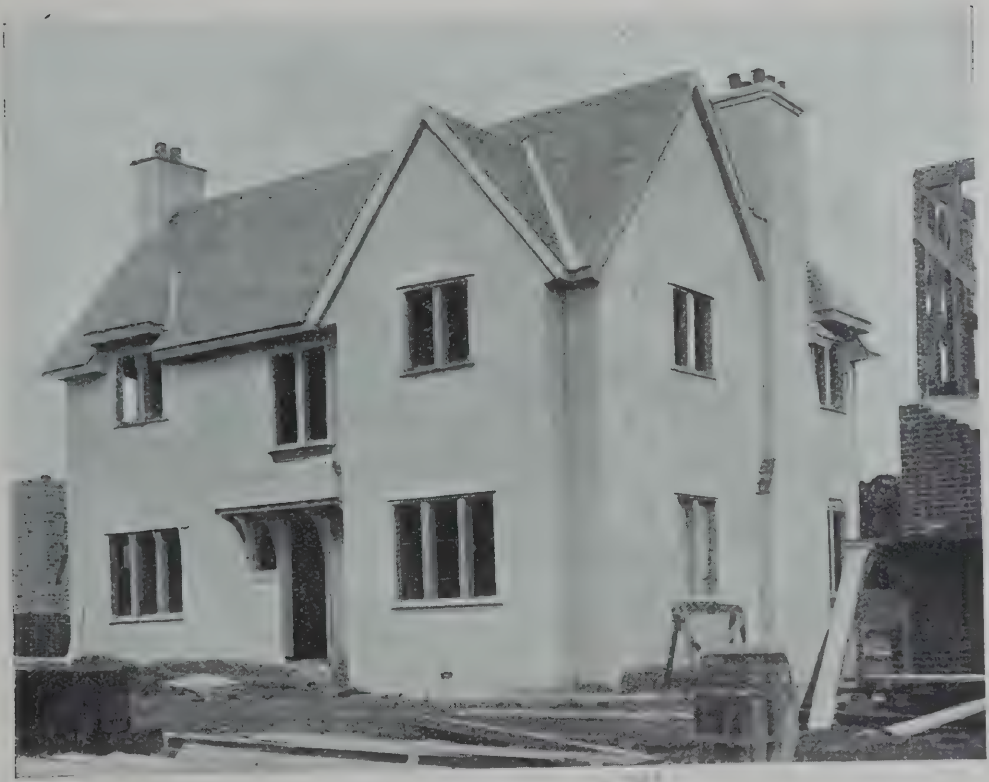
House at Newton. 4½ Days After Commencement.



House at Newton. 10 Days After Commencement.



House at Newton. 15½ Days After Commencement.



House at Newton. 21 Days After Commencement.

Cincinnati Golf Club Premises.

Block of flats. Geneva and Olney Street, Dorchester, Mass.

The architects of this country are, in my opinion, bound to consider whether some methods other than the stereotyped British methods cannot be adopted, in order that rapid, dry and reasonably permanent homes may be erected for the immediate needs of the people.

I have been considering very seriously for the past twelve months whether the systems of building adopted for generations in America and Canada cannot be adopted in our country. I have been assured by an eminent American architect with whom I have discussed this subject recently, that over 75 per cent. of the private houses in his country are erected with timber as the material for the main structure.

Thousands of very fine houses constructed in this manner in the great American continent have lasted satisfactorily a period equal to the life of the vast majority of the brick and stone houses in this country.

The consideration I have given this matter, and the information I have been able to collect upon American methods, impressed me with the determination to bring forward a proposal that in these serious days of housing famine in this country an attempt should be made in the national interest to break down the prejudice against the timber-frame building.

Further, I determined to design and erect three houses, adopting in the main the principle found to be highly satisfactory in America, but adapting the construction, design and finish to suit the tastes of the British people.

It is, I think, a well-known fact that the general weather conditions in the American continent are far more severe than those experienced in this country. We do not meet with "80-mile gales" or torrential deluges lasting frequently several continuous days and nights, but we have in many parts of this country very moist and penetrating atmospheric conditions.

Dealing with the question of the life of a structure, for most people ask the question "but how long will the house last," it must be admitted that the life of a dwelling house is its "habitable life," not the longest period during which the walls will stand without falling, and the roof "hang together" without dropping. The life of a dwelling house is exactly the period it will remain properly cared for, suitable for the "home" of a human being.

A very casual study of the favourite types of British artizens' houses, will indicate that the materials used for the shell of the structures are to a greater or lesser extent, porous.

Damp and unhealthy houses are the natural result of the use of materials of a porous nature for the external shell of the structures. It is often suggested that damp walls are due to the use of inferior mortar, and although this may be true to an extent, there can be no doubt that the damp, musty dwellings of the people are the direct outcome of the use of porous materials and thin walls. The porosity of the building materials in olden times was not of such great consequence, because of the great body of the mass contained in the outer shell of the structures. Just as engineering science will teach us that ordinary sea-water beach sand, if used in an embankment and exceeds one hundred feet in width, forms a water-tight wall, so there is a limit to the penetrating ability of moisture through the pores of the ordinary British building materials.

It must be remembered also that in the very thick walls of old erections frequently only the external face (to a depth of perhaps 18 inches or thereabouts) was bedded in mortar, and the remaining thickness consisted in the main of dry,

Block of Flats. Indianapolis, Ind. (*Shewing the building after the completion of the second process, the application of the Shield, described in this paper.*

Residence. Southfield Point, Stamford, Conn closely packed walling. The continuous passage of the moisture from the external to the internal faces became in this way very difficult if not impossible.

It is unnecessary for me to put before the members of the Society of Architects facts to prove that solid walls of the thicknesses usually adopted in the erection of ordinary dwelling houses in many parts of this country do not ensure dry homes. There are parts I could mention where a thoroughly well-built 20 inch rubble stone wall, or a good 14 inch brick wall, do not produce a house nearly so dry as the ordinary army hut will provide. There is certainly solidity and strength, but dry walls are practically unknown. The moisture contained within the masonry or brickwork being drawn within the dwellings, rots the joinery, the joists and other timbers, spoils the wall papers and makes the home musty and extremely unhealthy.

A few remarks upon the relative quality of stones and bricks from the point of view of their absorption of water may be of interest.

The following figures indicate the bulk of water absorbed in twenty-four hours as compared with the bulk of stone per cent. :—

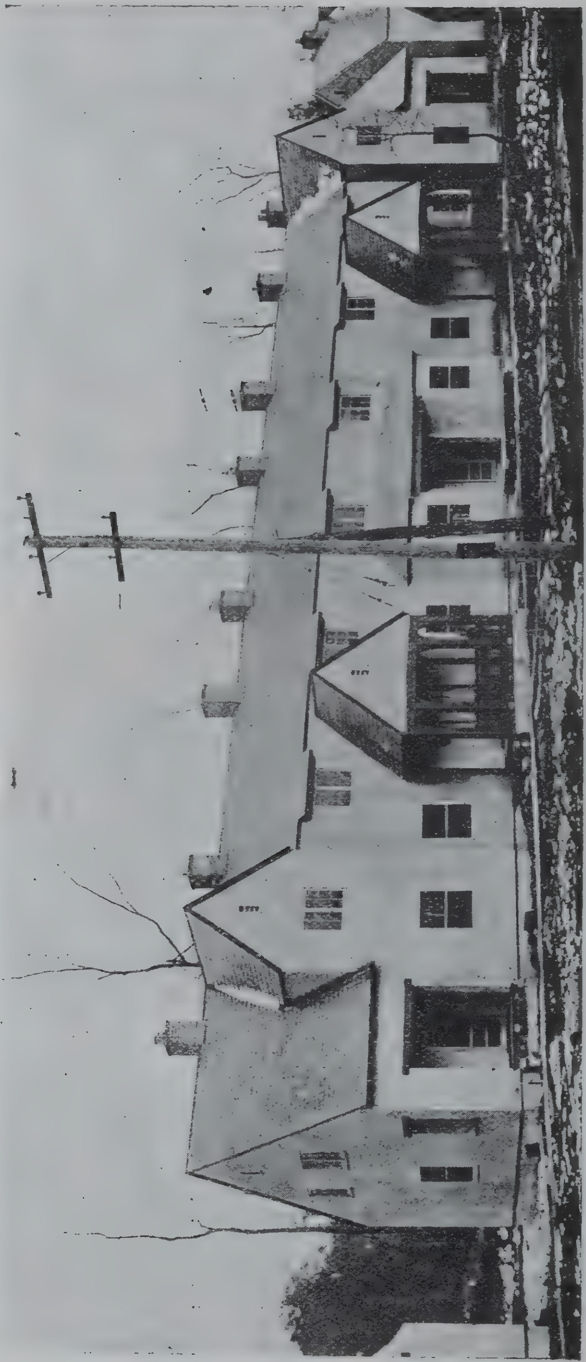
Good granite and Syenite	½	per cent.
Indifferent specimens	1	,,
Inferior specimens	3	,,
Sandstones—		
Craigleith	8	,,
Park Spring	8	,,
Heddon	10	,,
Mansfield	10	,,
Hassock	20	,,
Limestones—		
Marble	Just a trace.	
Portland	13·5	per cent.
Ancaster	16·6	,,
Bath (Boxground)	17	,,
Ketton	15·1	,,
Roche Abbey	17·2	,,
Kent Rag	1½	,,
Artificial Stones (various) from	7·5 per cent. to 12 per cent.	

Insufficiently burned bricks absorb a large proportion of water and decay very rapidly. The proportion of water that a brick will absorb is a very good indication of its quality. A good brick should not absorb more than one-fifteenth of its weight of water. The average brick, however, absorbs about one-sixth of its weight, whereas highly vitrified bricks absorb as little as one-fifteenth.

The following figures give the bulk of water absorbed by various kinds of bricks, as compared with the bulk of brick per cent. :—

Malm Cutters	22	per cent.
Malm Shippers	8½	,,
Common grey stocks	10½	,,
Common hard stocks	7½	,,
Staffordshire dressed blue	2·3	,,
Staffordshire bastard	11·8	,,
Machine-made red	9·9	,,
Wire-cut White Gault	19	,,
Brown glazed brick	8·6	,,

Hollow walls have been, of late years, very universally adopted, and are successful to an extent depending upon the care exercised in construction.



Houses Erected by the United States Housing Corporation, Hilton-Village, Newport News, Va.

To-day, the need of some new system is forced upon us, not only because of the unsatisfactory nature of old systems, but on account of the need for rapid, and if possible, cheaper building.

If a new system of building can be adopted that will be rapid, weatherproof, strong, lasting and cheap, that system should be embraced and carried into execution immediately.

The houses erected at Newton, near Swansea, I feel satisfied comply with all the essentials necessary for the provision of homes for the people, and are cheaper than brick, stone or concrete houses, and have the enormous added advantage of rapidity of construction and completion fit for occupation.

The first (erected and completed in 30 days) is an example of typical American house construction, adapted to suit English tastes. (Type A.)

The second type has a single brick veneer upon the outside, to pander to the conservative British taste. This feature is, in my opinion, an unnecessary expense, adds slightly to the time of erection and does not improve the weatherproof qualities of the house. (Type C.)

The third type has a single brick veneer to the first floor level and half-timbered work above. Both these features may add, in the opinion of many, to the beauty of the house, but from the point of view of the home within both are unnecessary and add to the cost and time of erection. (Type B.)

All three types have wooden frame-work as the main skeleton.

The first type is, in my opinion, the type that should be adopted in this country in the present emergency.

For the benefit of those who are sceptical upon the subject of this principle of house building, I give a number of illustrations from actual photographs, showing types of American residences, etc., erected in a manner identical in construction to that applied in the erection of the house at Newton before referred to.

In making this selection I have borne in mind the general impression in this country, that whereas wooden frame buildings may be quite all right for houses of the bungalow type, such a principle is not used, and indeed is not considered satisfactory for buildings of more than one floor.

To architects, the general method or principle is not new in any sense, excepting as applied to residences of the ordinary kind and similar buildings, and but for that rooted objection in this country to any new form of construction (only too well-known to advocates of reinforced concrete construction—the building system of the future, in my opinion) such a method would undoubtedly have been in use long ago. Public opinion would very rapidly have influenced the authorities upon the subject of the By-laws.

The vital point in construction, or perhaps more properly termed "finish" in the house erected at Newton, is the material used for the exterior covering of the timber-frame structure.

Much has appeared in the press of this country, during the past few weeks, upon the subject of the houses erected at Newton, and the general discussion, as a result of this publicity, has been centred around the subject of "wooden" house building, and to an extent has been somewhat harmful to any new system of house construction.

An American Garden Village.

The general impression conveyed to the minds of the public by many powerful newspaper paragraphs, and more fully emphasised by the published illustrations of typical Canadian houses, is that not only are the houses proposed by me to be erected in this country, wooden houses in structure, but also wooden houses in finish. That is to say the frame work being of timber and the external covering also of timber.

The obvious objections raised by the average Britisher to this type of house are its temporary appearance, the suggestion of lack of permanency, and the flimsy character generally. There is also the obvious necessity for continual expense and attention to the external covering for the prolongation of the life of the structure, added to the very obvious increased danger in case of fire.

There is, I think, a great deal of deception necessary in building houses as in the manufacture of other articles. It is not so much a question of what an article is in fact, as a question of what it appears. I feel satisfied that British people will never take kindly to a home which is wooden in construction and wooden in appearance, apart altogether from the considerations of permanency, weatherproof qualities and risk from fire.

Jewellery which is in fact brass and looks brass would not be a very marketable commodity, but the same articles which appear to be gold, and are in fact gold-cased, but in body are brass will always find a ready sale to those who cannot afford the solid and richer metal.

Therefore, if I may be allowed to use this not altogether satisfactory simile, the wooden house which is not only wooden but looks wooden will not be taken to kindly by the British people. Whereas the house which is timber-framed, and is encased upon the exterior with a thoroughly satisfactory, impervious and fire-proof material will meet the wishes and supply the needs of the people, and will, I feel sure, be accepted gratefully and without question.

DETAILS OF CONSTRUCTION.

In order to place before the members full details of the construction adopted in the houses erected at Newton, I have prepared to accompany this paper several sheets of detail of the various types erected.

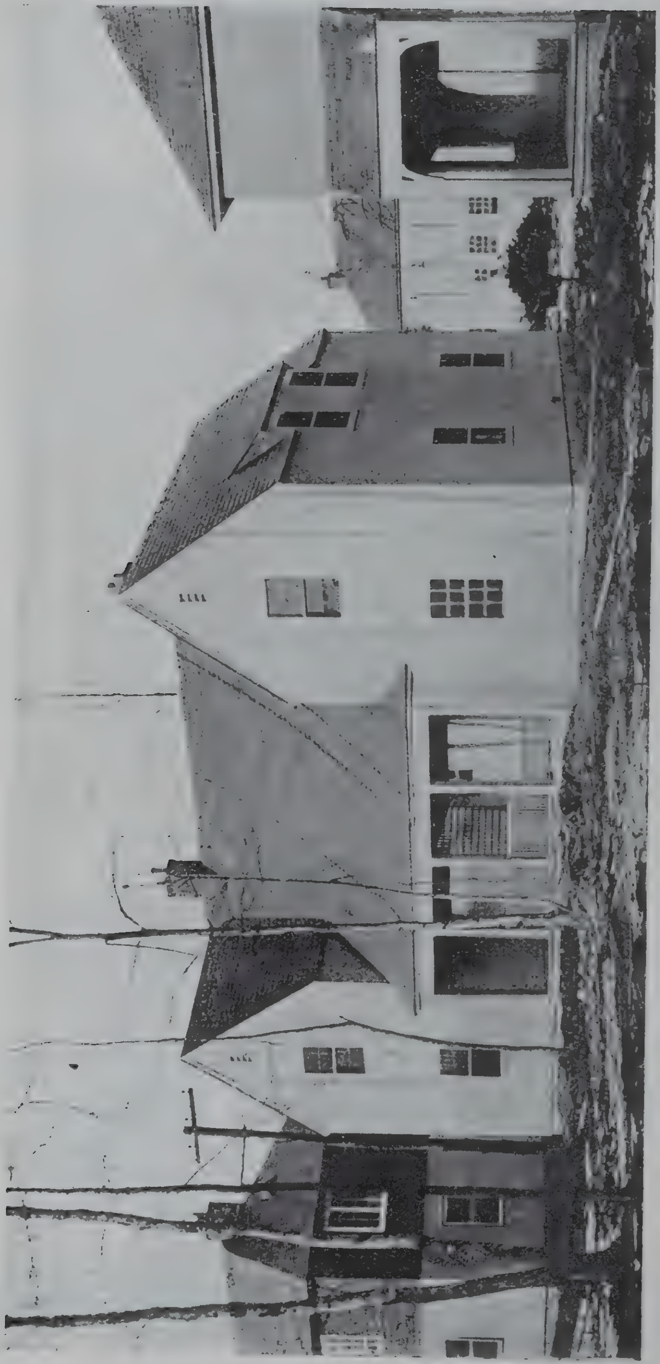
The foundations in every case have been prepared in brickwork so as to bring the sole-pieces of the wooden frame-work well above the ground level, and a bitumen damp-proof course has been laid upon the brick foundations. The entire site has been covered in each case with a layer of cement concrete.

The sole-pieces are then laid, and upon these the skeleton frame-work is erected. The main structure consists of 4 in. by 2 in. pieces erected to 16 in. centres, and these are properly braced in the manner shown upon the details, with 4 in. by 2 in. stuff.

The floor joists and roof timbers are exactly as they would be in an ordinary brick house.

The " feet " of all the uprights and the sole-pieces are coated with a satisfactory preservative material.

The necessary timbers forming the door and window openings, and for the purpose of carrying the floor joists and roof timbers are, of course, included in the general skeleton structure as shown upon the drawings, and the final result is a rigid, and powerful wooden skeleton.



Houses Erected by the United States Housing Corporation, Hilton Village, Newport News, Va.

In my opinion, up to this point there is nothing original or strange. Skeleton structures of this type have been erected in this country and all the world over for ages. Boarding upon the outside and lathing and plastering upon the inside would provide simply a "wooden" house and no more.

The description of the important process towards the completion of the dwelling house has to come, and in this I propose to explain the methods adopted by our professional brethren upon the other side of the Atlantic.

Upon the outside of the timber studding is applied a manufacture known as Bishopric Stucco Board, obtainable in large rolls 48 in. long, and consisting of three distinct materials.

The first material is a fibrous board, upon which the second material, a thick layer of asphalt mastic has been applied, in which mastic the third material (hereafter described) is embedded under great pressure.

The third material before referred to, consists of wooden dove-tailed laths. These laths are one and three-eighths inches wide, and three-eighths of an inch in thickness, and are embedded in the asphalt mastic at five-eighths of an inch distance apart.

This shield (as I propose to term the Bishopric Stucco Board) is then carefully un-rolled vertically against the timber studding of the skeleton structure, breaking joint upon the centre of the upright studding.

The fibrous board being next to the studding, and the dove-tailed lathing outside. This shield is then firmly nailed to the studding of the structure, one long wire nail being used to nail each lath at the points bearing upon the studding. Each dove-tailed lath (in its 48 in. length) would therefore be nailed to the studding with four wire nails.

We have now completed what one may term the second process in the erection of the shell of the structure, and have up to this point obtained a very stiff and rigid structure, capable of withstanding any wind pressure.

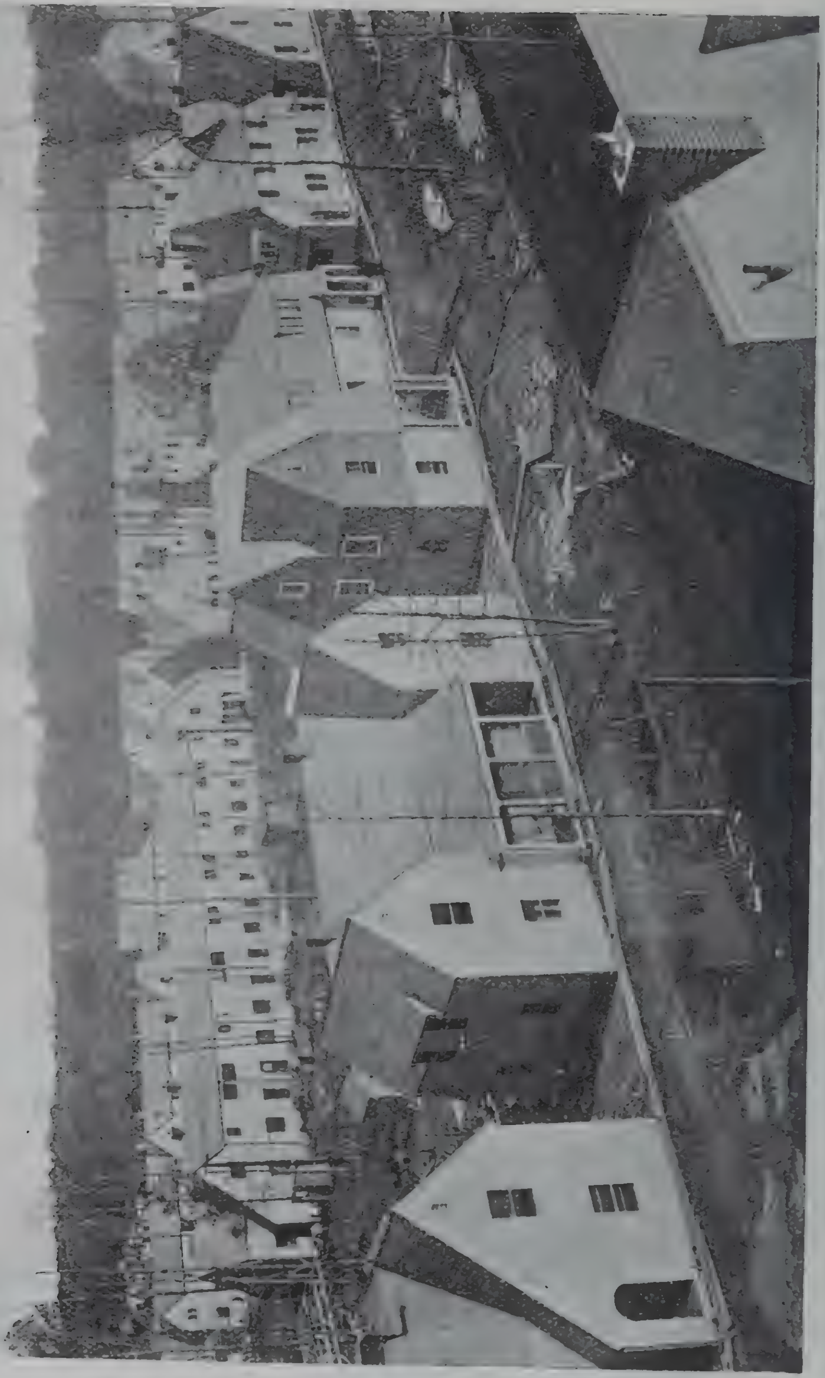
In addition, if the shield is properly fixed, we have a perfectly damp-proof, vermin-proof and warm structure. In fact, the inventor claims that the thick layer of asphalt mastic applied to the face of the fibrous board is also fire-proof. This may or may not be so, but as the entire shell is not completed I do not propose to debate this point.

What one may term the third process in the erection of the shell has now to come, and in my opinion this last process is the most important from the point of view of the final production of a good, healthy and artistic home.

In many parts of the American continent the final process consists of the nailing of weather boards upon the outside of the shield as described above, but in this mode of finish one has the external wooden appearance and the continual expense of maintenance, and for these reasons, in my opinion, this method of finish is not satisfactory for this country.

In the house erected at Newton, as in the case of the houses erected in America, as illustrated, cement plaster has been applied to form the external finish and the final appearance is identical with that of an ordinary brick house with cement stucco applied on the external faces.

The cement plaster must be of good quality and must be applied in two distinct coats, the first filling in between the dove-tailed laths and forming a "skin" over the face of the laths, and the second coat being of similar rich mixture, and finished in the ordinary stucco manner. The total thickness of the cement plaster upon the face of the laths would be about one-half an inch.



Houses Erected by the United States Housing Corporation, Hilton Village, Newport News, Va.

A few notes upon the use of the shield and upon the preparation and application of the stucco may be of interest to the members, in case it may fall to their lot to adopt this or a similar form of construction.

The shield—*Care of the Material.*

It is necessary that the shield (the Bishopric Stucco Board) which is received in large rolls, should be kept dry. This material should be put under cover promptly upon arrival at the site of the works. When applied to the wooden studding of the building, it should be nailed upon the studding (in the manner already fully described) as rapidly as possible. When once thoroughly nailed upon the frame-work skeleton, it is not in any way injured by wet weather. Should the weather be fine during the fixing and completion of the shield material, the shield should be sprinkled with water before the cement stucco is applied.

The application of the shield. The shield material should be fixed as already explained, with the lathing horizontally.

Cutting the shield material. When cutting across the lath strips a sharp saw should be used. The sheets of the shield material being laid upon a bench for the purpose of cutting. Clean cuts should always be obtained so that tight vertical joints may be obtained when the material is fixed upon the studding. For lengthwise cutting, a coarse rip-saw should be used between the lath strips. Cutting being carried out from the lath side of the material.

Nailing the shield to the studding. If the shield is nailed as already explained to the studding, there will be no possibility of the laths buckling or warping. Wire nails of sufficient length should always be used, certainly not less than 2 in. long.

Breaking joints in the shield. The joints of the shield should be broken at least every four feet, thereby avoiding continuous joints, and adding greater strength and rigidity to the structure.

THE CEMENT STUCCO.

For the cement stucco, only best quality Portland cement should be used.

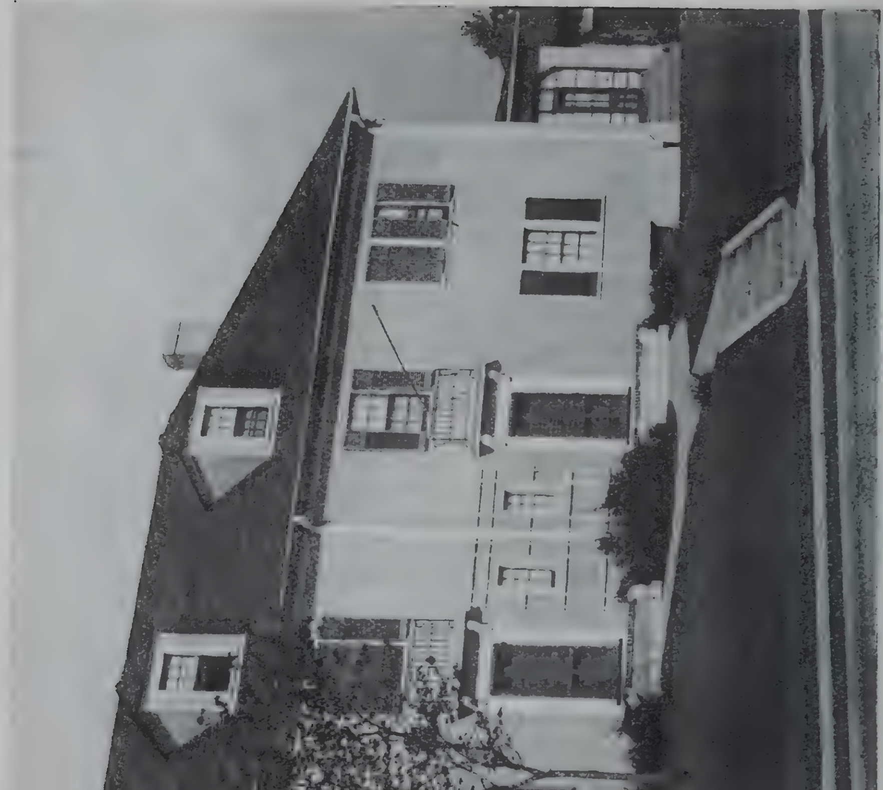
In America stucco work (which I may add is the very finest class of work I have yet seen) hydrated lime of approved quality is mixed with the cement.

All sand used should be free from loam, salt, vegetable or other deleterious matter, should be angular and sharp and, if necessary, should be washed.

I feel sure that not nearly sufficient attention is paid to our mortars and plasters. If first quality cement is used, and the aggregate is clean and sharp and the proportions proper, there is really no reason why first quality work should not be obtained.

The mixture as used in America is as follows, viz.—One part of hydrated lime is mixed dry with ten parts of cement, both being thoroughly incorporated until of perfectly even and uniform colour. Then one part of this mixture to two and a half parts of dry sand, with a sufficient quantity of water added to give a good stiff mortar.

Application of stucco. Apply the first coat to the shield, under pressure to ensure the filling of the dove-tailed keys upon the external face, rowelling as little as possible, Cross-scratch this coat deeply and thoroughly. This first coat should be five-eighths of an inch in thickness, and should be kept wet from the second day for seven days before the application of the second coat.



Large Residences at Hartford, Conn.

For the second coat use the same mixture as before and apply in the same manner, omitting the scratching. Stipple or float this coat at the time of application.

For extra good work a third coat is applied not less than one-quarter of an inch in thickness, this coat being carried on continuously in one direction, without allowing the mortar to dry out at the edge.

SURFACE FINISHES.

There are numerous forms of surface finishes, viz.:—

Smooth trowelled. Finishing coat to be smoothed with a clean metal trowel, with as little rubbing as possible.

Stippled. Finishing coat shall be smoothed with a clean metal trowel with as little rubbing as possible, then shall be lightly patted with a brush of broom straw to give an even stippled face.

Floated. Finishing coat, after being brought to a smooth and even surface, shall be rubbed in a circular motion with a wooden float. This floating must be done when the mortar is partially set, and a little sand should be used to slightly roughen the surface.

Rough coat. After the finishing coat has been brought to an even surface, and before attaining its final set, it shall be uniformly coated with a mixture of one part white cement to two parts of white sand thrown forcibly against the wall in such a manner as will produce a rough surface of uniform texture.

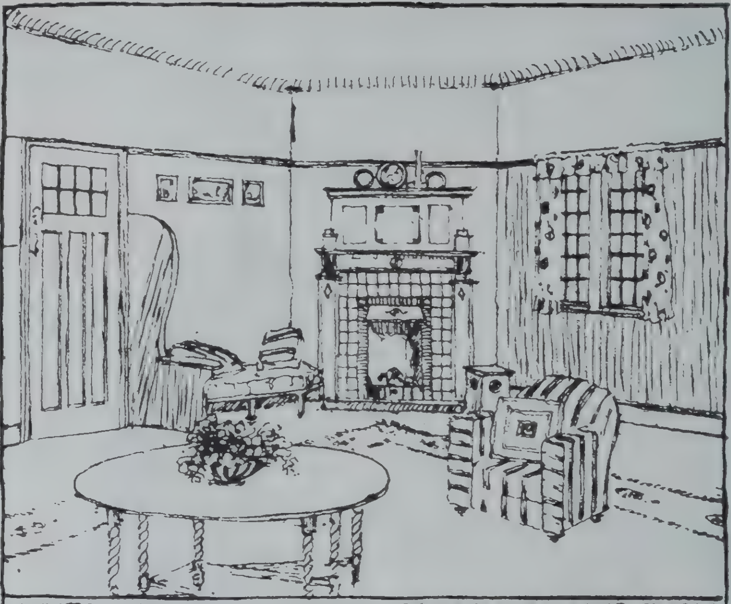
Pebble dash. After the finishing coat has been brought to an even surface, and before attaining its initial set, clean pebbles or crushed stone shall be forcibly thrown against the mortar and embedded therein.

Pebbles should vary in size from $\frac{1}{4}$ in. to $\frac{1}{2}$ in., should be well wetted before being cast against the wall, and should be uniformly distributed over the surface. They should be pressed into the surface with a clean wooden trowel, but the surface should not otherwise be disturbed.

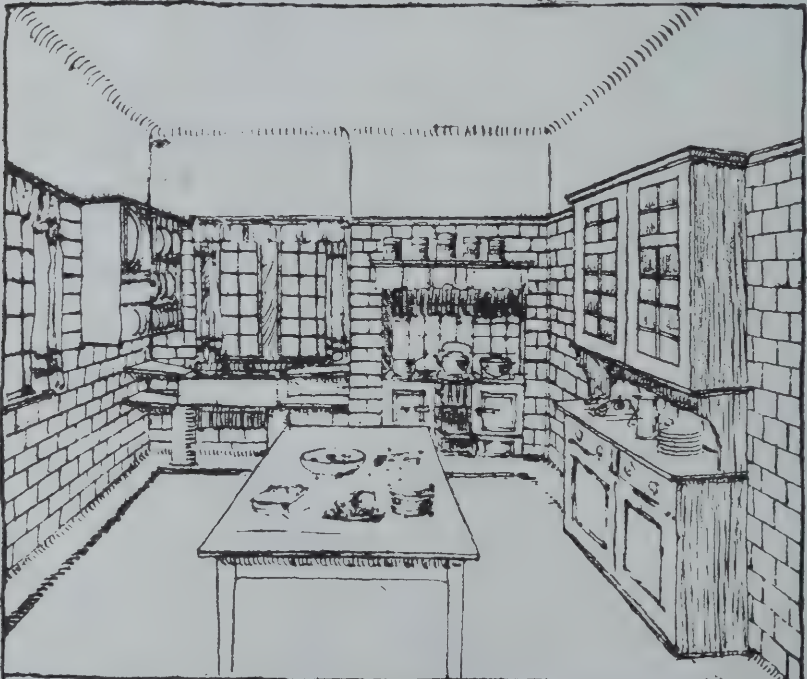
I have attempted in this paper to present to the members a concise *résumé* of the housing problem of to-day as it appears to me, and have further indicated as nearly as I find it possible, the facilities in the shape of building labour, materials and methods based upon pre-war conceptions and ideas, which it appears to me are available, subject to proper and efficient organisation and control, for an attempt to solve this problem.

I am very strongly of the opinion that the housing problem cannot be solved by the adoption of British house building methods of pre-war days, and that some other method must be adopted to cope with the existing emergency. Whether the system adopted so extensively in America, and set out fully in this paper, will be considered as satisfactory or not, does not interest me to any particular extent. If the attempt I have made in this effort to put before the members of the Society of Architects, is successful to the extent that some other and more rapid and, if possible, more satisfactory method of house building is adopted in this country, I shall feel that I have rendered some little service in the cause of housing in this country.

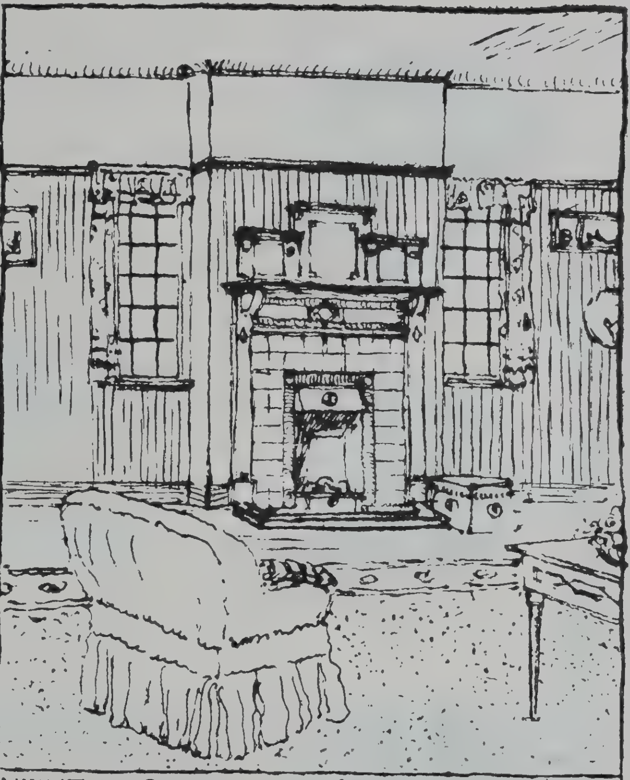
I think it necessary to explain that the site selected for the erection of the houses at Newton was so selected because of its exposed character. These specimen houses are erected some two or three hundred feet above the level of the waters of the Bristol Channel, and are fully exposed to the prevailing westerly gales.



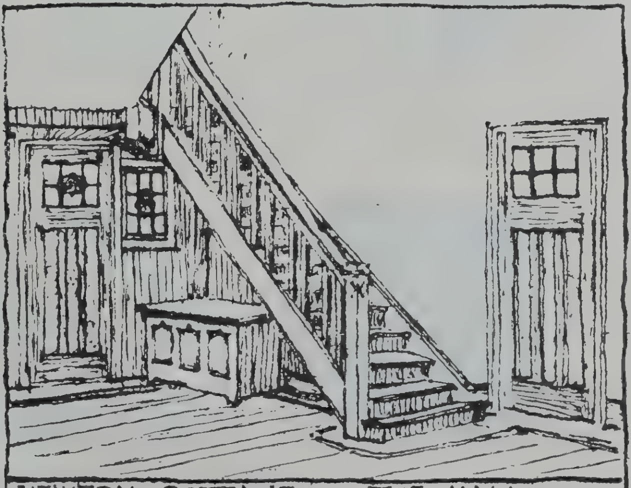
NEWTON COTTAGE ... CORNER FIREPLACE IN LIVING ROOM.



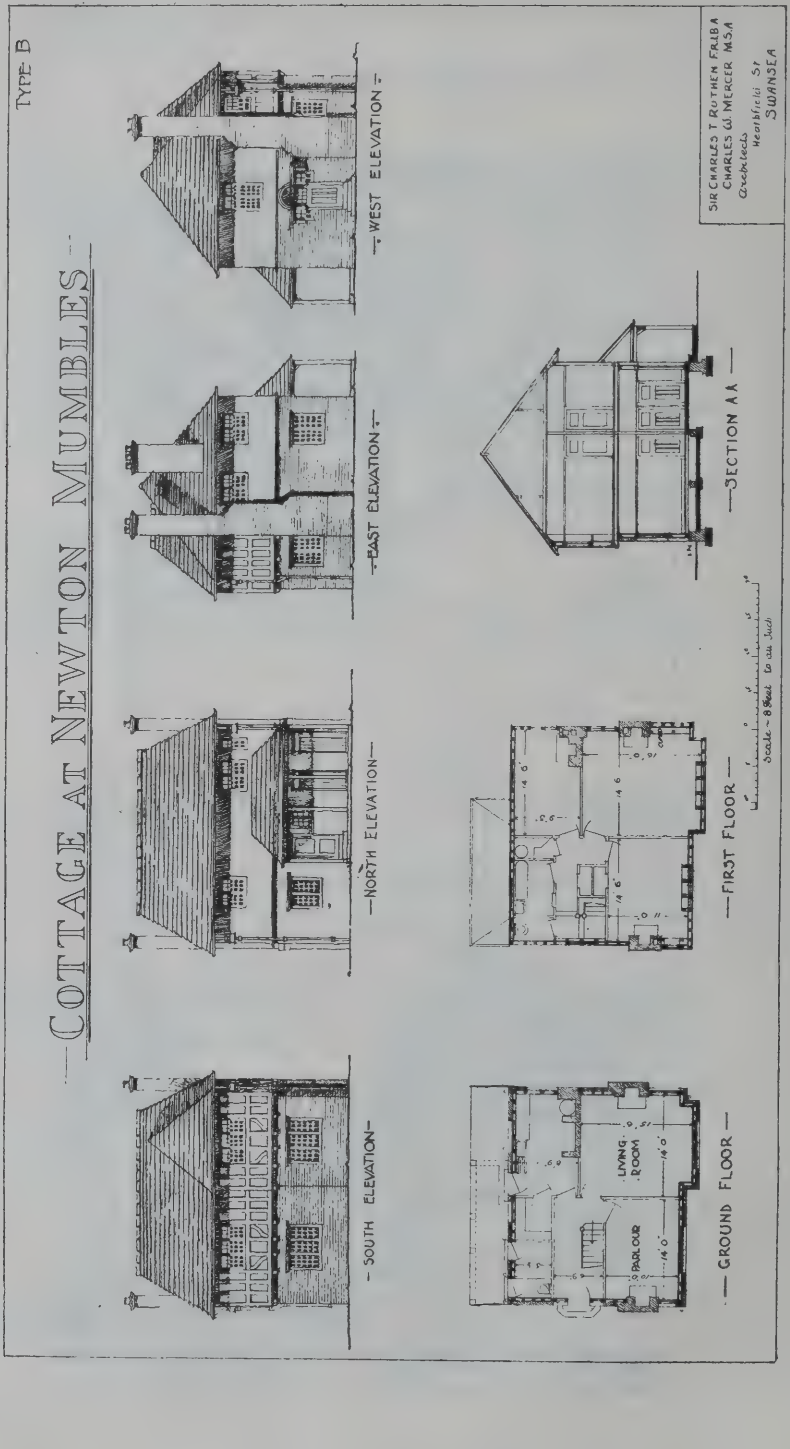
NEWTON COTTAGE ... THE TILED KITCHEN ...



NEWTON COTTAGE ... THE PARLOUR ..



NEWTON COTTAGE .... THE HALL ......


TYPE B
COTTAGE AT NEWTON MUMBLES
SOUTH ELEVATION
NORTH ELEVATION
EAST ELEVATION
WEST ELEVATION
GROUND FLOOR
LIVING ROOM
PARLOUR
FIRST FLOOR
SECTION AA
Scale ~ 8 feet to an inch
SIR CHARLES T RUTHEN F.R.I.B.A
CHARLES W. MERCER M.S.A
Architects
Heathfield St
SWANSEA

I consider that many newspaper paragraphs upon the subject of cheap wooden houses, peculiar to Canada, have been very misleading, particularly upon the subject of cost. I have received many scores of letters asking for particulars of the system adopted at Newton, but, unfortunately, quite a number of correspondents have confused my houses with some illustrated in the Press, and a published statement that such can be erected for £300. One may quite imagine the rush there is for a house or bungalow containing six or seven rooms at a cost of £300. Proper houses containing such accommodation cannot be erected in this country to-day for anything like that figure.

I should explain that the houses at Newton have not been erected with the intention of showing what can be erected for the lowest possible price. My intention, and I have succeeded, was to show that artistic, strong, lasting, weatherproof houses can be erected in a matter of a few weeks, and that after completion they can be tenanted immediately. Also, that although erected in a very short time, they are, notwithstanding, good houses, finished so far as the exterior and interior are concerned, in the best possible manner and with the best possible materials.

The roofs of Type A house have been covered with best rustic Precelly slates, specially selected and well laid The kitchen has been tiled with white-glazed tiles to a height of about seven feet, the plumbing, sanitary and other fittings, joinery and door and window furniture are of best quality, and all the windows are steel casements glazed with leaded lights.

Types B and C are erected in exactly the same manner, excepting that the roofs of Type B are covered with Broseley Tiles, and those of Type C with Welsh Green Slates.

If the proposition be accepted that the form of construction adopted at Newton is satisfactory from the various essential points of view, that is to say, that the principle is rapid, reasonably lasting, strong and weather-proof, I should like to put before the members a few additional points in favour of this system of house construction.

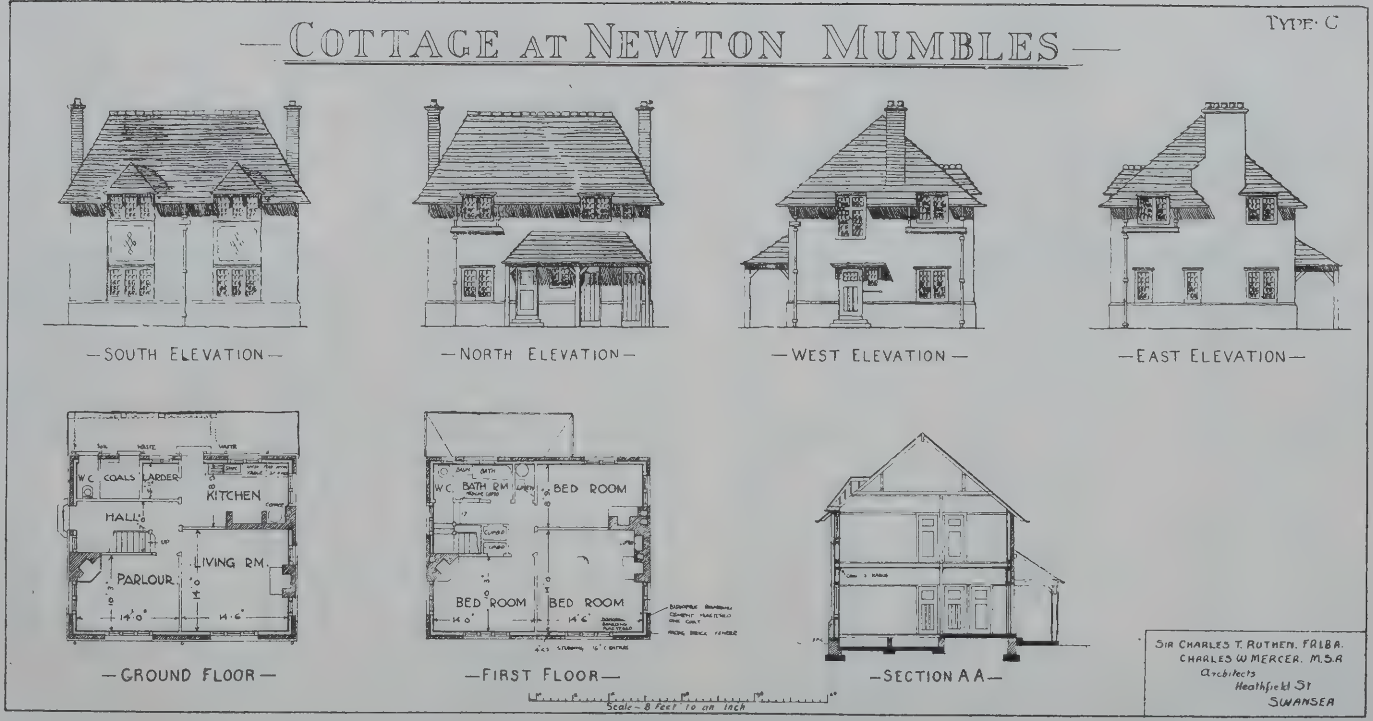
In considering the question of cost, and applying the consideration to the actual cost of the shell of the structure, I have been able to obtain figures which convince me that the actual cost per superficial yard of the shell, that is to say, the timber framing or studding, the shield fixed upon the outside and plastered two coats of cement plaster, with the inside lathed and plastered in the usual way, or covered with asbestos sheeting or fibrous wall board, is less to the extent of seven shillings than the same shell would be if erected in 11 inch hollow brickwork.

The actual cost of the Type A house at Newton has been £125 less than the same house would have cost in 11 inch hollow brickwork.

There are also a number of minor advantages from the point of view of cost, small points perhaps, but all of consequence in these difficult days of housing shortage and building costs.

The area of the site to be covered is smaller than would be the case with a brick house. The foundations are less costly, the roof timbers and slating are less in quantity.

In conclusion I may state definitely that in the present national emergency I place speed in erection first of all and, incidentally, speed with which houses are tenantable after completion. I place next in order of importance weather-proof qualities and stability of structure, all other essentials follow in order of importance. I feel confident that the life of structures properly erected similar to the specimen


—COTTAGE AT NEWTON MUMBLES—
TYPE: C
—SOUTH ELEVATION—
—NORTH ELEVATION—
—WEST ELEVATION—
—EAST ELEVATION—
SOIL
WASTE
WASTE
W C
COALS
LARDER
KITCHEN
HALL
UP
PARLOUR
LIVING RM.
10' 3"
14' 0"
14' 0"
14' 6"
—GROUND FLOOR—
BATH
W C.
BATH RM
BED ROOM
CUPBD
CUPBD
BED ROOM
BED ROOM
14' 0"
14' 6"
—FIRST FLOOR—
Scale – 8 Feet to an Inch
—SECTION A A—
SIR CHARLES T. RUTHEN. FRIBA.
CHARLES W MERCER. M.S.A
Architects
Heathfield St
SWANSEA

houses at Newton will be quite as long as most of our pre-war houses, and there is no doubt about it, the cost of erection is less.

Whatever may be your opinion of these important matters, I feel confident that the time for talking is over, and the time for action has arrived.

All those who have the highest interest of the State at heart will agree with me when I say that houses must be built, if good houses, so much the better, but houses must be built and at once.

I should like to record my thanks to my partner, Mr. C. W. Mercer, M.S.A., for his assistance in the preparation of the details and other drawings, and to my friend and client, Mr. W. K. Jones, for his great confidence in my opinion, and for finding the necessary money for the erection of these experimental houses. I feel that great thanks are due also to the Press of the country for so splendidly supporting me in the effort I am making towards the solution of one of the greatest problems of modern times. I am also indebted to Mr. H. A. Chapman, of Swansea for the photographs of the houses at Newton.

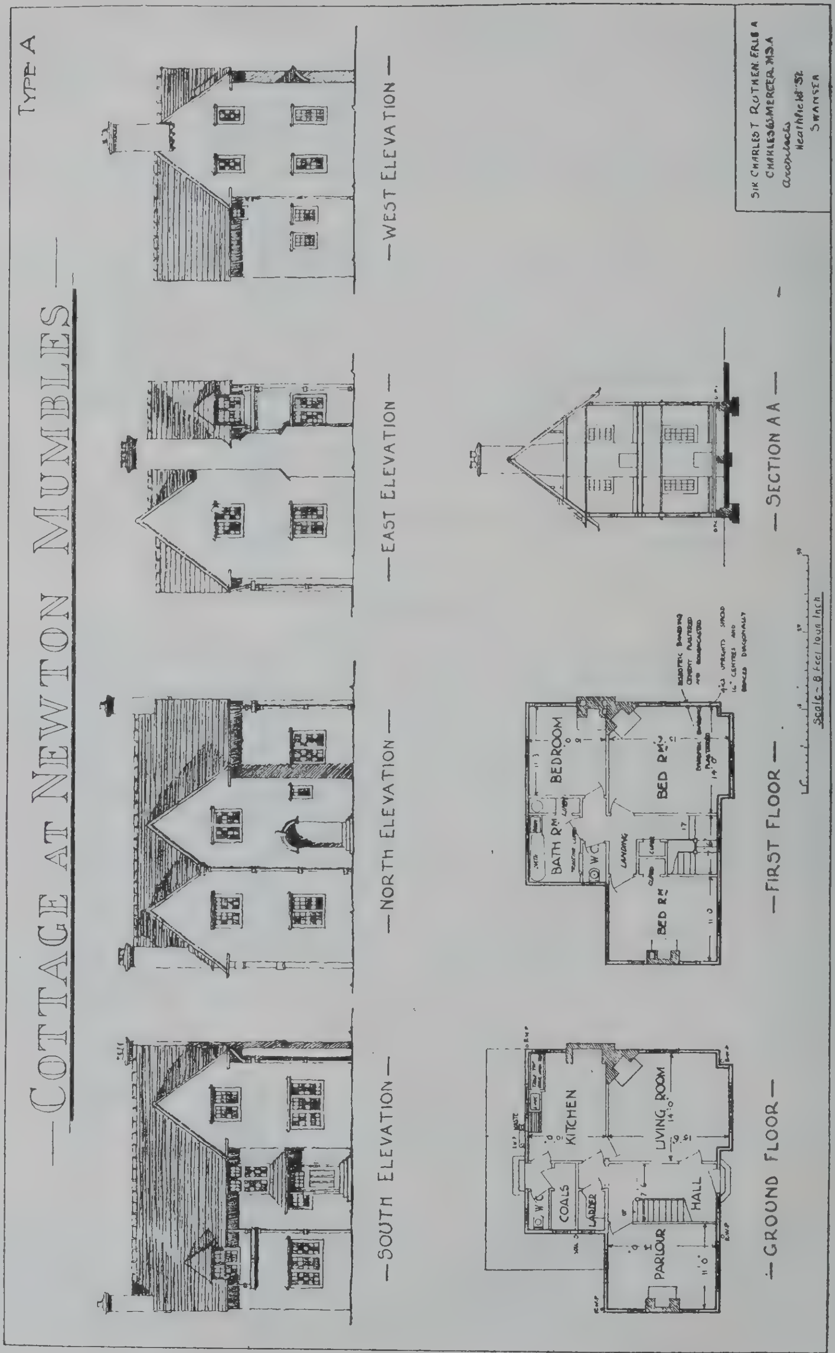
DISCUSSION.

In amplification of his paper, Sir Charles pointed out that the system of construction he had described was above all things rapid. He was also satisfied that the structure was strong, weather-proof, and cheaper than the old-fashioned buildings ; and for these reasons it would be well if this or some similar system were adopted. All types of buildings would have to be used if a serious attempt was to be made to solve the problem of the shortage of housing accommodation. They could not expect the present overcrowding to continue, and unless something was done, it was possible that the badly-housed people would take the law into their own hands. It was not a question whether the proposed houses would last a dozen or fifty years, but whether they were better than nothing. If they could not house the people at once in houses that would last a century, it was better to erect houses that would last 25, 35, or 45 years, provided they could be built immediately. Let them house the present population, and let future generations look after themselves !

Mr. A. Moore (Epsom) said he was not an architect, but he was able to state that in Epsom, there was a large number of timber-built houses, which had been in existence since the middle of the 17th Century. They were as good to-day as ever, and were commanding rentals as high or higher than when built. They had no brick foundations, and the only thing against them, was that some of the older ones had developed a species of infectious mildew, which spread over all the houses in an extraordinary manner. There were no proper dampcourses in the houses, which perhaps accounted for this.

Mr. Manning Robertson (Ministry of Health) referred to the possibility of dry-rot. He was not clear whether the walls were to be finished on either side with impervious material, or with lath and plaster on the inside ; and whether it was intended to ventilate the cavity in the roof ?

Sir Charles Ruthen said the idea he had when he started these houses, was to try to close up the avenues of criticism. He thought if he used very thin or common slates he would be criticised. His Precelly slate roof weighed 5½ tons. Private enterprise was not building at present, and middle-class and working people had to look to Local Authorities and Public Utility Societies for their housing. He wanted the middle-class man to see in the houses which he (the speaker) put up, a house suitable for the middle-class man or the workman. He did not want people to say " This is a rapidly built house and looks it ! " His chief aim was not to erect cheap houses, but good houses.


COTTAGE AT NEWTON MUMBLES
TYPE A
SOUTH ELEVATION
NORTH ELEVATION
EAST ELEVATION
WEST ELEVATION
SECTION AA
GROUND FLOOR
KITCHEN
LIVING ROOM
COALS
W.C.
LARDER
HALL
PARLOUR
FIRST FLOOR
BEDROOM
BED RM
BATH RM
W.C.
LANDING
BED RM
Scale - 8 Feet to an Inch
SIR CHARLES T RUTHEN F.R.I.B.A
CHARLES & MERCER M.S.A
Architects
Heathfield St
SWANSEA

Major Fred J. Edge, R.E. (Housing Commissioner, Newcastle-upon-Tyne) asked if these timber-frame houses were suitable for erection on unstable foundations. In colliery districts, a great deal of trouble was caused by the Ministry of Health condemning sites on account of coal workings underneath. He looked upon the paper read by Sir Charles as the most useful contribution made on the subject of Housing since he (the speaker) had taken any interest in the subject. He was not an architect, but an engineer, and was brought into this matter by the Ministry of Health. He claimed for engineers that they had got rid of old methods of construction, and were always finding new ones. He hoped architects would help them in this question of housing by utilizing all methods which would help to solve this problem.

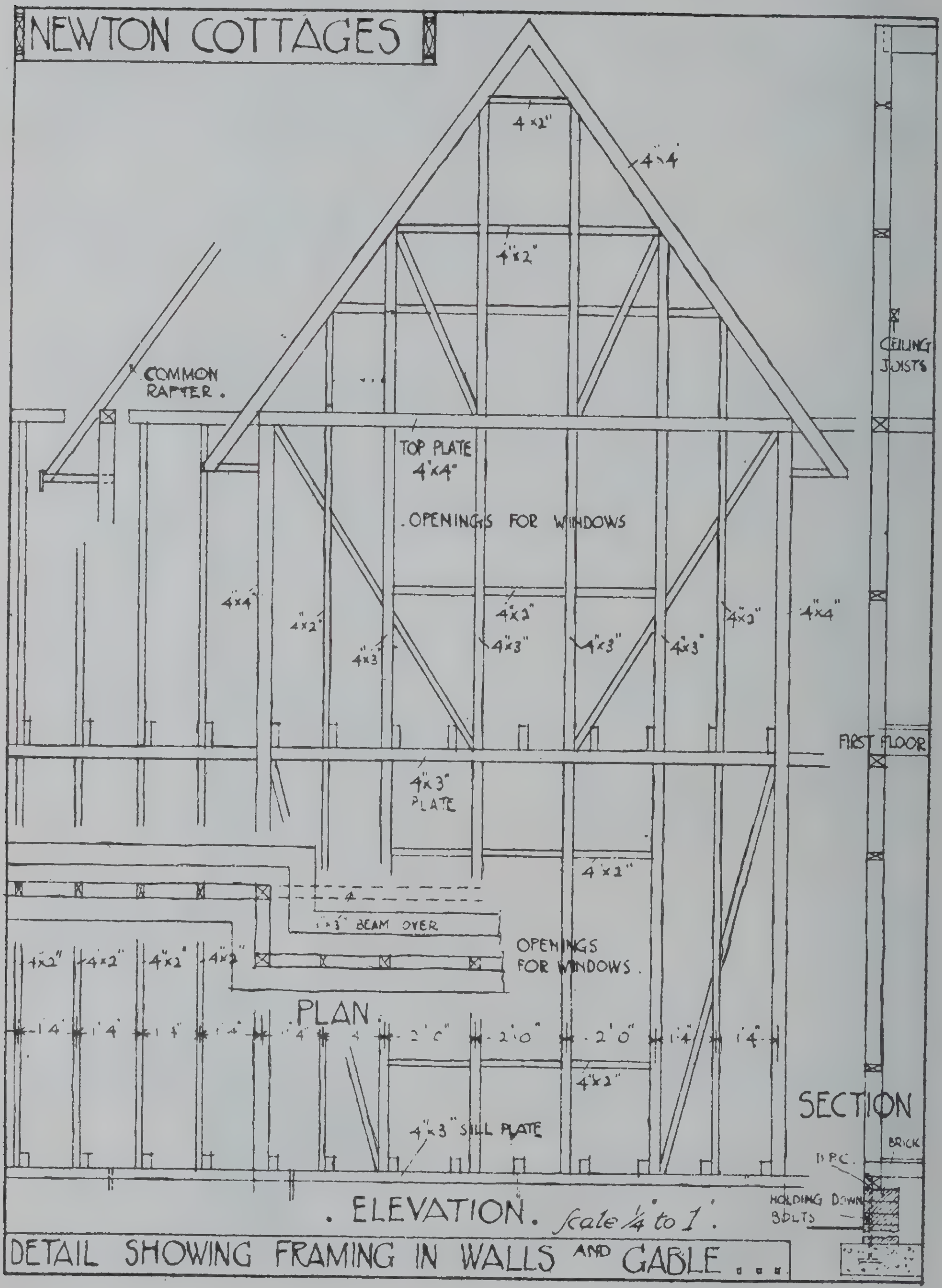
Sir Charles Ruthen said he had tried to keep all un-essentials in the background. The structure of his houses was of a monolithic nature, and nothing could be better for bad ground. Thousands of nails were used in the construction of each house, and this so bound the whole together, that it became like a reinforced-concrete structure. It would be practically impossible in a properly constructed building of this type for a corner of it to settle.

Mr. S. Pointon Taylor (Ministry of Health) expressed the view that with timber framing, and Bishopric stucco boarding, two vertical dampcourses outside and inside were provided. The trouble would be to get sufficiently dry wood to prevent dry-rot. He thought that even the most sceptical people who had heard the lecture, would be satisfied that a good case had been made out for the wooden house; but the question of making these houses fire-resisting, and minimising the danger of fire spreading even with only 12 houses to the acre in urban districts and 8 to the acre in rural districts was a serious one. There should be a space of 9 inches between the fireplaces and flues and any timber, instead of 4½ inches. Every effort should be made to render wooden buildings vermin-proof. Another point was the porosity of bricks making houses musty. The fact was that the porosity of certain materials helped to solve the problem of ventilation. The amount of air which penetrated a 9 inch or 18 inch brick wall was surprising. A room could be hermetically closed, and yet life could be maintained in it for a long time provided the walls were of brick of a certain porosity. It was a problem of the ventilation of houses which had impervous materials on the outside and the inside—the question of condensation did not arise. A point in favour of wooden-frame houses was their suitability for erection in areas subject to subsidence. They had trouble all over the mining areas in this matter on the question of compensation. With regard to the manufacture of the sheathing this appeared to be the root of the system, and he hoped that when wooden houses were going to be erected in anything like large numbers, some British firm would take up its manufacture. The great point about the whole housing question was, that there was room for all methods of construction, and wood, brick, and concrete houses were wanted. From the statistics which Sir Charles had quoted, it would appear to be very difficult to get sufficient bricks, and they must bring into use all other suitable materials. The best place for wooden houses was in rural areas, where they would be less liable to fires and more in keeping with the characteristics of the country. As architects, they must clear their minds of political economy. Their job was to provide houses, as cheaply and economically as possible, no matter what material was used.

Sir Charles Ruthen said that the previous speaker had removed the houses from the places where they were wanted, to the places where they were not wanted. It was very nice to talk about types of houses, but rapidity came first. He would like someone to get out statistics of the fires in this country, and see whether such a point was worth considering in face of the tremendous housing question. What happened to brick houses when a fire occurred inside? They usually had wooden floors and fittings, and the interior of the house came down like a pack of cards. There might be some possibility of fire from external sources, but he failed to see, with the use of impervious material and houses 12 to the acre, how they were to have anything like a " prairie fire." On the question of the porosity of materials, that was the first time he had heard the liability of bricks to dampness quoted as an argument in their favour, or of porous bricks being used as an aid to ventilation. If there was any shortage of air in rooms, people occupying them must be taught to open the windows. Damp walls meant ill-health and death; to put people into damp houses was certainly one method of solving the housing problem!

Mr. A. Moore (Epsom) said the Chief of the Epsom Fire Brigade was present, and informed him that no fire had occurred in his recollection in the timber-frame houses in that town.

Mr. W. H. Leverton (Dorking) said Sir Charles had seen the need, and had successfully supplied it. In the case of a fire in a brick house, the floors and roof would soon be burnt out, but the party walls would prevent the fire from spreading to the next house. It would be a


NEWTON COTTAGES
4×2"
4×4
4"×2"
COMMON RAFTER.
TOP PLATE 4"×4"
.OPENINGS FOR WINDOWS
CEILING JOISTS
4"×4"
4"×2"
4"×3
4"×2"
4"×3"
4"×3"
4"×3"
4"×2"
4"×4"
FIRST FLOOR
4"×3" PLATE
4"×2"
4"×3" BEAM OVER
OPENINGS FOR WINDOWS.
4"×2"
4"×2"
4"×2"
4"×2"
PLAN.
1'4"
1'4"
1'4"
1'4"
1'4"
2'0"
2'0"
2'0"
1'4"
1'4"
4"×2"
SECTION
BRICK
D.P.C.
HOLDING DOWN BOLTS
4"×3" SILL PLATE
. ELEVATION. scale ¼ to 1'.
DETAIL SHOWING FRAMING IN WALLS AND GABLE . . .

great advantage to have plenty of air space round wooden houses. Restrictive building by-laws, which were the root of all housing troubles must be altered to meet the present needs.

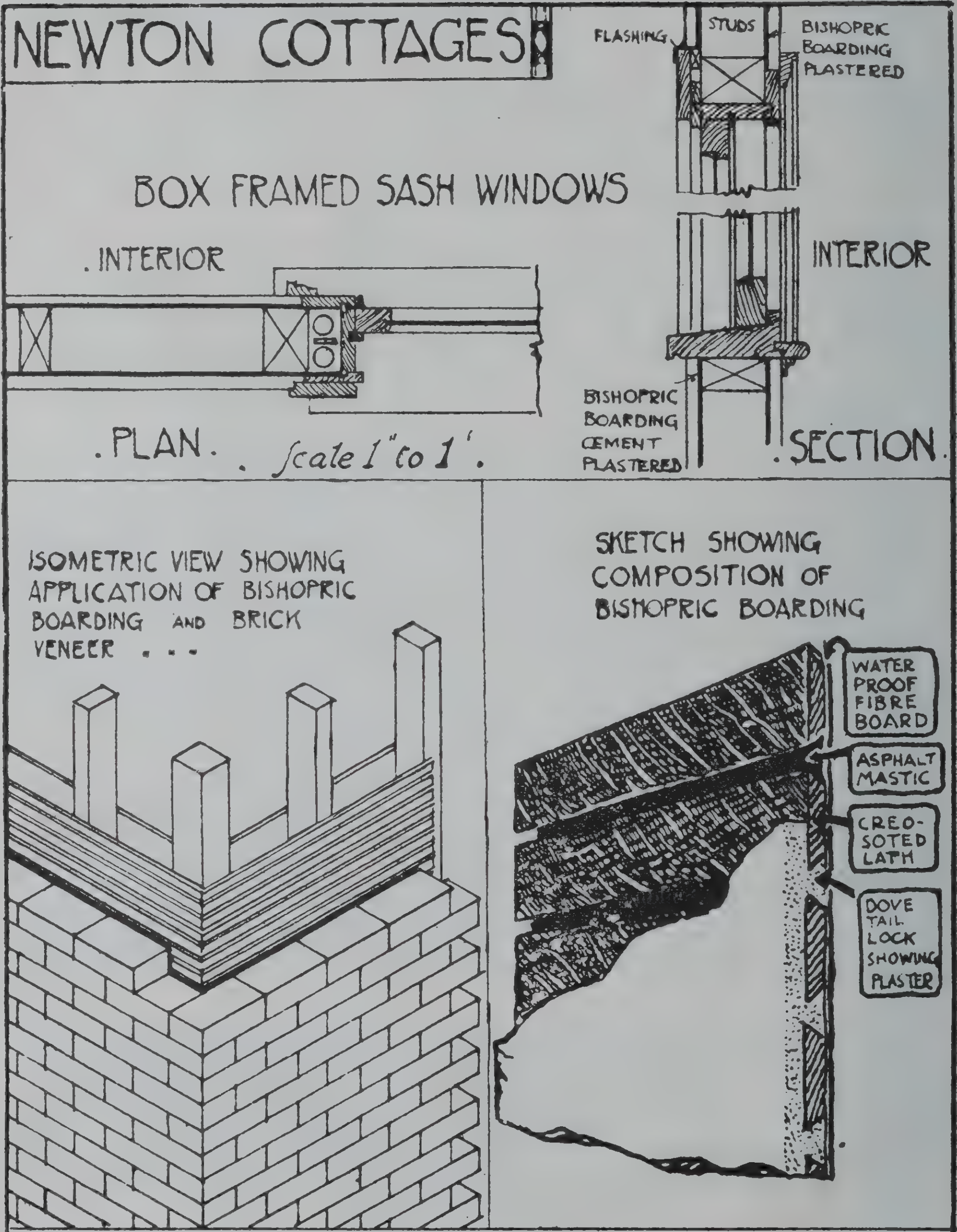
MAJOR HARRY BARNES, M.P., F.R.I.B.A., M.S.A. (Newcastle-upon-Tyne) said that on Tyneside they were proud of the attention which Sir Charles had given to this problem, and in order to solve it they must avail themselves of all the resources of the country, and of all building methods. There was no more promising method than that described by Sir Charles Ruthen. There was no doubt that where there was a danger of subsidence the advantages of this method outweighed any disadvantages. If Sir Charles could persuade the Ministry of Health to adopt that type of house in the coal and salt mining districts, he would get a chance to show the real merits of the scheme.

MR. F. E. G. BADGER (Director of Housing, Liverpool Corporation) said the propaganda in the Press with regard to the cost of wooden houses was absurd. They were no cheaper than the brick houses being built now, and the newspapers ought to know the views of experts. The weight of timber in a wooden house of the type required would be about 15 tons ; the additional freight charge was £105 on the quay in England, and with the expense of transit in England, the probability was that they would have to add some £300 to the cost of the same building in America. The monolithic construction was alright, except for the foundations, and if a reinforced concrete foundation was used instead of brick, he thought they might with more confidence approach the Ministry of Health.

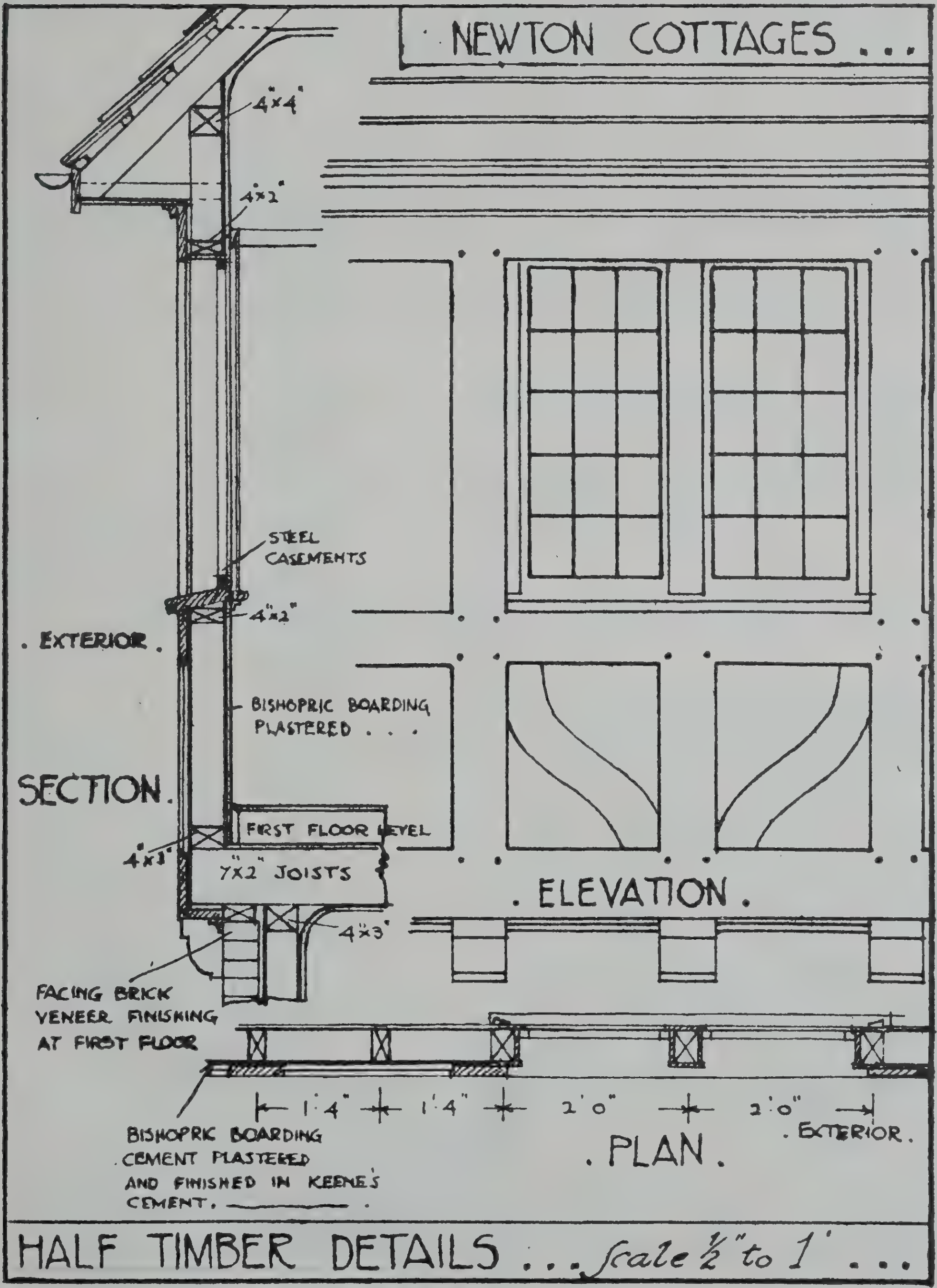
SIR CHARLES RUTHEN intimated that he was not approaching the Ministry of Health, but simply putting forward what might be useful information. If the Ministry approached him, he would do anything in reason for the department. The Ministry of Health might, or might not be working, but the results were not being seen. He was troubled for the people who had no homes. It was time that the Ministry got a move on, and instead of criticising they should put forward something which they would agree to themselves. If that was not possible, they would wait until there was a housing revolution, when those who had no homes would take from those who had. On the outbreak of war, the number of men engaged in the building industry was just over 900,000. This number was reduced by the war to 700,000, and there had been no apprentices during the war period. It would require 2½ times as many men as in pre-war days to tackle the problem by pre-war methods in five years. The difficulty at the present moment was labour. They could add to the number of men in the building trade, by adopting this system of wooden-frame houses, because they could use much unskilled labour. The house at Newton was started and completed within thirty days.

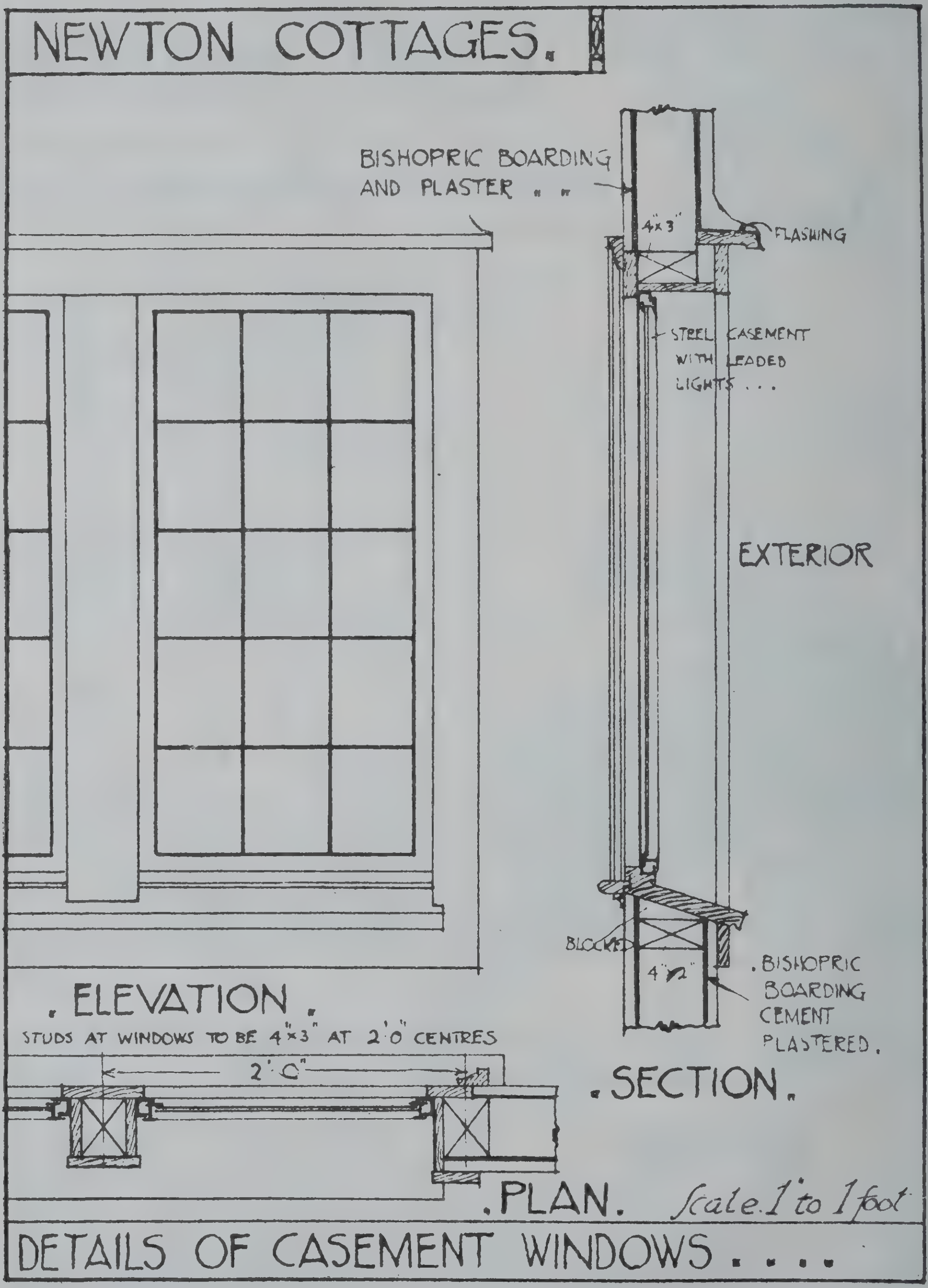
MR. EDWIN J. SADGROVE, F.R.I.B.A. (The President) in conveying a hearty vote of thanks to the lecturer, said that as a result of the discussion and Sir Charles Ruthen's replies, they could form their own opinions as to the weight attaching to the criticisms made by various speakers. Every credit was due to Sir Charles for giving them a practical demonstration of what could be done, not only on paper, but in actual construction. These buildings were weatherproof, and in every way suitable as homes for the people for whom they were intended. There was room for all kinds of substituted building materials if the time could not be spared and the materials obtained for the erection of the buildings of the kind they had been accustomed to in pre-war days. They must get the houses up in some form or another. Sir Charles had placed before them one type as being suitable, and while there were also others, he must say that he thought Sir Charles had made out a good case.

SIR CHARLES RUTHEN thanked them for the vote of thanks, and expressed his pleasure at seeing so many architects, engineers, and representatives of Local Authorities present. They would appreciate that it required some pluck to erect experimental houses, and stand up to be shot at (as it were) by the community. Personally, that did not hurt him, but there were others who would not come forward, because there were so many people sitting in high places, ready to jump on them. He valued very highly the criticisms which had been levelled against the system, constructive criticism was good. He hoped that this slight effort of his would be the cause of building up rapidly some decent homes for the people.


NEWTON COTTAGES
FLASHING
STUDS
BISHOPRIC BOARDING PLASTERED
BOX FRAMED SASH WINDOWS
. INTERIOR
INTERIOR
. PLAN.
. scale 1" to 1'.
BISHOPRIC BOARDING CEMENT PLASTERED
. SECTION.
ISOMETRIC VIEW SHOWING APPLICATION OF BISHOPRIC BOARDING AND BRICK VENEER . . .
SKETCH SHOWING COMPOSITION OF BISHOPRIC BOARDING
WATER PROOF FIBRE BOARD
ASPHALT MASTIC
CREOSOTED LATH
DOVE TAIL LOCK SHOWING PLASTER

DETAILS SHOWING BOX FRAMED SASH WINDOWS, APPLICATION OF BISHOPRIC BOARDING, AND BRICK VENEER . . . .


NEWTON COTTAGES ...
4"×4"
4"×2"
STEEL CASEMENTS
4"×2"
. EXTERIOR .
BISHOPRIC BOARDING PLASTERED . . .
SECTION.
FIRST FLOOR LEVEL
4"×3"
7"×2" JOISTS
4"×3"
. ELEVATION .
FACING BRICK VENEER FINISHING AT FIRST FLOOR
1'4"
1'4"
2'0"
2'0"
. EXTERIOR .
. PLAN .
BISHOPRIC BOARDING CEMENT PLASTERED AND FINISHED IN KEENE'S CEMENT.
HALF TIMBER DETAILS ... scale ½" to 1' ...


NEWTON COTTAGES.
BISHOPRIC BOARDING AND PLASTER . .
4"x3"
FLASHING
STEEL CASEMENT WITH LEADED LIGHTS . . .
EXTERIOR
BLOCKED
4"x2"
. BISHOPRIC BOARDING CEMENT PLASTERED.
. ELEVATION .
STUDS AT WINDOWS TO BE 4"x3" AT 2'0" CENTRES
2'0"
. SECTION .
. PLAN .
Scale 1" to 1 foot
DETAILS OF CASEMENT WINDOWS . . . .

THE

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The Society is not, as a body, responsible for the opinions expressed by individual authors and speakers.

Statutory Registration of Architects.

A LEAD FROM NOTTINGHAM AND DERBY.

On the evening of the first anniversary of the Armistice, Mr. Harry Gill, M.S.A., a Past President of the Nottingham and Derby Architectural Society, addressed a largely attended meeting of its Members on the question of Statutory Registration.

Mr. Gill traced the movement from its inception some 35 years ago, and showed how the active propaganda of the Registrationists had gradually cleared the ground and consolidated the profession on the principle involved, leaving only questions of detail to be reconciled. He drew a lesson from the War on the necessity for Unity of command and action, and urged the profession to adopt similar tactics in dealing with the Registration Bill.

Mr. Gill contrasted the limitations of the R.I.B.A. proposals for Registration with the more liberal and acceptable suggestions of the Society, and deprecating divided counsels, he urged that the present state of affairs afforded an opportunity which ought to be taken advantage of to present a united front and gain a great victory.

The speaker dealt at length with the pros and cons of the matter, and the arguments for and against the proposal, and pointed out that certain abuses could only be dealt with by a body possessing statutory powers.

Mr. Gill pointed out that the proposal was as much in the public interest as in that of the architect, and concluded by moving the following resolution :—

> " That the Statutory Registration of Architects is an urgent necessity. That the R.I.B.A., The Society of Architects, and representatives of outside architects be asked to collaborate on the draft of a Bill to be presented to Parliament at an early date."

After a full discussion the meeting unanimously adopted the above resolution.

Proceedings of the Society.

A Special General Meeting of The Society of Architects was held at 28, Bedford Square, London, W.C.1, on Thursday, October 16th, 1919, at 8 p.m.

The President (Mr. Edwin J. Sadgrove) having taken the Chair, the Minutes of the previous meeting, as published in the Journal, were taken as read, and were confirmed and signed.

The Secretary announced two nominations for Membership, and the reinstatement by the Council of Samuel Davies, of Frodsham ; E. J. W. Hider, of London ; H. E. Nicholls, of Neath ; R. Ingleby Smith, of Bristol ; and J. C. Thompson, of Bristol, to Membership ; and of the admission by the Council of W. H. Williams, of London, to the Register of Graduates ; and R. H. Cross, of London, and D. J. Pryce, of Pantyffymon, to the Register of Students.

The Secretary also announced the election by the Council of Harvey W. Corbett, Architect, of Brooklyn, New York, to temporary Membership of the Society, the transfer to the list of Retired Members of Edwin J. Hamilton, Past President, of Brighton, and the resignations of H. C. Chevalier, Richmond, and G. M. Seels, Dorchester (Members).

Sympathetic reference was made to the loss sustained by the Society, through death, of Geo. E. Dickens-Lewis, of Aberystwyth (Member), Local Hon. Secretary and Past Member of the Council; Edwin O. Sachs (Member), of London; R. C. E. Griffiths (Student), Bridgend; and E. Timmins (Student), of Birmingham.

The ballot was then taken for the election of the following candidates for Membership, and was declared to be unanimously in their favour :—

Ansell, James Richard, 203, High Street, Hull. Blacking, William Henry Randoll, Quarry Hill Lodge, Guildford. Blackwell, John, The Gables, Granville Avenue, West Hartlepool. Bourne, Wilfred Augustin Ranulph, 57, Gracechurch Street, E.C.3. Chambers, John Francis, 3, Belgravia, Goole, Yorkshire. Dalton, Harold, 10, Peterson Road, Wakefield. Daniel, Thomas Llewelyn, A.R.I.B.A., 204, Cranbrook Road, Ilford. Elston, James, Market Chambers, Earlstown, Lancs. Fletcher, William Billington, 17, George Street, St. Helen's, Lancs. Fysh, Percy William, 12, Northgate Street, Warwick. Garrett, Alfred John Wilton, 93, Architectural Branch, Secretary's Office, G.P.O., North, E.C. Gott, Joseph Harold, New Camberwell Road, Kennington Park, S.E.5. Hope, Percy Mirehouse, O.B.E., Bank Chambers, Penrith. Howard, Ernest Tom, Tredegar, Wellington, Somerset. Howells, David John, Bryn Hywel, Clase Road, Morriston, Swansea. Joynes, William James, R.N. Airship Station, Cramlington, Northampton. Kewell, John Ernest, 20, Cooper Street, Manchester. Mitchell, Frederick Charles, 50, Moorgate Street, E.C.2. Murray, John, F.R.I.B.A., 11, Suffolk Street, Pall Mall, S.W. Nurse, Harry, Boro' Surveyor's Office, Town Hall, Warrington. Parrott, Stanley Charles, 23, Castle Street, Luton. Price, Thomas John Bertram, The Nook, Moorfield Grove, Moordown, Bournemouth. Rigby-Smith, Archie J., 16, Belgrave Crescent, Woodsmoor Lane, Stockport. Sainsbury, Frederick George, 154, Friar Street, Reading. De Souza, Walter Edward, A.R.I.B.A., 20, Woodville Road, Golder's Green, N.W.4. Suddards, Frank, 5, St. John's Terrace, Heysham Road, Morecambe. Tubbs, Grahame Burnell, A.R.I.B.A., 10, Gray's Inn Square, W.C.1. Tune, George Martin, 570, Woolwich Road, Charlton, S.E.7. Tyler, Ernest Arthur, 11, Queen's Walk, Ealing, W.5. Varaona, Carlos, San Salvador, Central America. Wands, William, 13, Ridley Road, Harlesden, N.W.10. Wheatley, William Bailey, 20, Savile Street, Hull. Witten, Robert Boutflour, 2, Cambridge Terrace, Heighington, R.S.O., near Darlington. Wright, William Oswald, 12, Preston Road, Southport. Wynne-Jones, Neville, A.R.I.B.A., 33, Hawthorne Avenue, Swansea.

The Scrutineers' Report on the ballot for the Election of Officers and Council, 1919-20, was then received, showing the following elections to fill the vacancies ;—

President : Sadgrove, Edwin J. *Senior Vice-President :* Ruthen, Sir Charles T., O.B.E. *Junior Vice-President :* Brown, A. Burnett. *Honorary Secretary :* Sheffield, Noel D. *Honorary Treasurer :* Paine, George H.

Honorary Librarian: ADAMS, PROFESSOR HENRY.

Council: London—INGLIS, MAJOR T. STEWART, D.S.O.; MONSON, H. C. H.; PARTRIDGE, EDWARD J.; WENYON, G. H.; *Country*—HOUFTON, P. B.; Chesterfield; SKIPPER, MAJOR C. F., Cambridge;

There being no observation on the Report, it was resolved that it be adopted and entered on the Minutes.

A hearty vote of thanks was accorded to the Retiring Members of Council and to the Scrutineers.

SIR CHARLES T. RUTHEN, O.B.E., Senior Vice-President, read a paper on "British Building Methods," and a discussion followed, in which the following took part:—Messrs. W. H. LEVERTON, A. MOORE, F. E. G. BADGER, POINTON TAYLOR, MANNING ROBERTSON, MAJOR HARRY BARNES, M.P., MAJOR F. S. EDGE, and the CHAIRMAN.

SIR CHARLES T. RUTHEN replied to the points raised, and a hearty vote of thanks was accorded to him.

The Proceedings then terminated.

An Ordinary Meeting of The Society of Architects was held at 28, Bedford Square London, W.C.1. on Thursday, November 13th, 1919, at 8 p.m.

THE PRESIDENT (Mr. E. J. Sadgrove) having taken the Chair, the Minutes of the previous meeting were, at the request of the meeting, taken as read and were confirmed and signed. The reinstatement to Membership was announced of MR. L. CROWFOOT, of Long Melford.

Twenty-four nominations for Membership were announced, and also the admission by the Council to the Register of Graduates of:—

HENRY STEPHEN TOWNSEND,
22, St. Chad's Road,
Derby.

ALLAN DOUGLAS REID,
27, Belford Grove,
Woolwich, S.E.18.

The Secretary announced the resignations of the following members:—

P. M. BALSARA, of Bombay.
R. H. BOYD ,, London.
G. G. KING ,, Belfast.

The ballot was then taken for the election of the following Candidates for Membership, and was declared to be unanimously in their favour:—

MILLEN, DAVID,
4, Arundel Street,
Strand, W.C.2.

MONK, WILLIAM,
Athlone House,
Haddingley Hall,
Wakefield.

THE PRESIDENT stated that the meeting had been called to enable Members personally to express their views on the proposals of the Council for grading the Membership, as set out in the circular letter to the Members, dated November 1st. He outlined the circumstances which led the Council to make the proposal, and showed that it arose from the growth and development of the Society and from a demand from within and without for some such scheme as had been put forward. The President then referred to the communications which had been received from Members at a distance, who were unable to attend the meeting, quoting some typical letters for and against the scheme. The letters showed that an overwhelming majority of those who had replied were in favour of the proposals in principle, and that some of them had made suggestions for modification on points of detail. Generally speaking, they were agreed on the three principal classes of Membership, and to the present Membership subscription being raised, provided Members were not penalised if they did not wish or were not eligible to transfer to higher grade.

A long discussion ensued during which the Chairman and the Secretary dealt with the points raised, the chief of which were that in certain cases the proposed Fellowship class should be widened to include architects holding chief appointments ; that whatever distinctive initials were adopted, they should be "clean-cut" if possible ; and that the interest of present Members should be safeguarded.

The Chairman intimated that all the observations, both written and personally expressed would be scheduled for further consideration by the Council in the event of the scheme being found generally acceptable in principle to the meeting.

At the conclusion of the discussion, a resolution was passed by a large majority approving of the Council's proposal to grade the Membership as set out in the circular, leaving it to the Council to name the respective classes and to decide upon the distinctive initials, and to settle other details arising.

The Chairman intimated that in due course a Statutory Meeting would be called to amend the Articles of Association on the lines agreed upon, subject to the settlement by the Council in the meantime of the minor points left in its hands.

A hearty vote of thanks was accorded to the President for his lucid explanation of the proposals and his conduct of the meeting.

The proceedings then terminated.

Another Australian Atelier.

Some three years ago we drew attention to the establishment in Sydney of an Atelier on similar lines to that founded by the Beaux Arts Committee in London (see the JOURNAL, No. 97, Vol. IX, November, 1915).

Now we learn that it is proposed to establish another one in Melbourne. The inception and success of the Sydney Atelier was due to private enterprise on the part of Mr. Gordon S. Keesing, who evolved a scheme combining the functions of an Atelier with the elements of a University course. His only difficulty was the lack of any supporting institutions, which forced him to carry on the work single-handed.

This obstacle does not exist in Melbourne, as the University are fathering the scheme, and with the active co-operation of the Royal Victorian Institute of Architects, which has agreed to guarantee the University 5 per cent. on the estimated cost of the building and equipment (£500) for a period of ten years.

The object of this Atelier is to promote the study of the principles of design, which aim at the development of architecture. It is to be conducted as far as possible on similar lines to those in Paris and elsewhere, and enables its members to acquire a like training in the art of architectural composition. Being an Atelier and not a class, it is always open, and its internal control is regulated by the committee, consisting of three representatives of the University and two of the Council of the Royal Victorian Institute of Architects. The director of studies attends at stated intervals, and definite times are fixed for working together, and for the exhibitions and criticisms.

It is suggested that this movement may be a stepping stone to a Chair of Architecture at Melbourne University, and as there is already one at Sydney University in charge of Professor Wilkinson, who is known to be in sympathy with the Atelier system, there would seem to be every prospect of a great development of architectural education in these two States in the immediate future.

British House Building Methods.

Comments of the Professional Journals on Sir C. T. Ruthen's Proposals.

The subject of wooden houses was ably dealt with in a paper read by Sir Charles T. Ruthen, O.B.E., before The Society of Architects, in which the author begins by reviewing the situation, and his figures, we think, exceed anything which has been put forward in connection with the housing shortage. "At present," he says, "notwithstanding State action, not more than 10,000 houses are in progress, and of these not more than 6,000 will be ready for occupation by the end of the year." Having regard to the growth of population and the pre-war deficit, he considers than no less than a million houses (his figure is 1,044,000) will be required during the next five years, and at 25,000 bricks per house, this means the production of five thousand millions of bricks per annum. Before the war the annual output was about 2,800,000,000, and the estimated maximum output for existing plant is barely 4,000,000,000. The author's solution is to leave the brickmaker alone as far as possible and turn to other methods of construction, and he gives interesting particulars about the timber-framed houses he is erecting in South Wales, consisting of 4 in. by 2 in. wood framing, covered with Bishopric Stucco Board, a fibrous board covered with asphalt mastic in which are embedded under pressure wood-laths with splayed edges, which give a key to rough cast subsequently applied, the laths being external. This material, 4 ft. wide, is supplied in rolls, and can be very quickly nailed to the studs. Internally, the stud walls are finished in ordinary lath and plaster. As to cost, £125 was saved on one cottage as compared with 11 in. hollow brick walls; but of greater interest was the speed of erection. Among the numerous most informing illustrations we are shown the stages of a two-story house with the whole of the wall and roof framing erected in ten days, and rough-casted and tiled in 21 days. Of course, much internal work remained to be done, but this seems a wonderful achievement, and we think that the workers in South Wales, carpenters and bricklayers—for the house has brick foundations and chimney stacks—must be a good deal less contemplative in their methods than our friends nearer home if this is a criterion of their progress. A claim is made for dryness, and the possibility of immediate occupation of houses erected in this manner, and the high absorptive powers of brick, stone and other materials are quoted. Further, the long life of such houses as erected on the other side of the Atlantic is cited in their favour. We think great credit is due to anyone who, in these difficult times, puts forward fresh ideas upon the subject of housing, and that dwellings constructed as described will do something to meet urgent needs. We have said before that encouragement should be given, until pressure is somewhat relieved, to more temporary structures than those of brick. We do not imagine that great saving in cost will accrue. The shell of a house and its foundations hardly represent a third of the average total outlay, and though the need for that *rara avis*, the bricklayer, is much reduced, it is not entirely eliminated. At the same time, without wishing in the least to minimise Sir C. Ruthen's contribution to the subject, we must look at these things soberly. The Housing Act is emergency legislation, and the sooner it is possible to discard it the better. This may not be for years, but we must keep the fact in mind. Our point is that what is desirable as emergency building is not necessarily to be taken as a permanent new standard for domestic architecture. —*The Builder*.

With much of what Sir Charles Ruthen said in his address to The Society of Architects, on the subject of British House Building Methods, we are in absolute agreement; but we disagree *in toto* with him on certain fundamental issues.

To begin with, it is comparatively easy to pile statistics upon statistics and to prove, as many speakers do, that there is an immense housing shortage to be made good; every speaker on the subject agrees as to this, while differing in the little sums they make up of our present and future wants. But Sir Charles Ruthen, like many another speaker, is silent as to the reasons which underlie the present shortage, which are, we hold, more important than the amount of the shortage itself if we are to arrive at a permanent settlement of the question once for all. The initial reason for the shortage is that the Finance Act of 1909-10 for the first time in the history of the country interfered with the natural operation of laws of supply and demand by penalising those who had hitherto made a reasonable profit, and in process of doing so, had provided what was wanted.

It is useless to argue that a payment of one-fifth of the difference between the improved price of developed and that of undeveloped land is a mere bagatelle; the fact remains that once the principle is accepted, there is no reason why one quarter, one third, or even one half might not in time be demanded. The Government had, in fact, sold the keys of the citadel of security, the security of house property as an investment vanished, mortgages on it were called in, and house property as an investment was "bear'd." The result—as to which ample warnings had been given—was apparent in a falling off of one half, and then a greater and greater proportion, till the national shortage became evident to all, even in the pre-war days. Nor was it fair and just to argue that the houses that had been erected were deficient in planning, design, or accommodation, for the by-laws permitted them, local authorities sanctioned them, and public opinion accepted them. Builders were no more to be blamed for the result than we could blame Columbus because he did not cross the Atlantic in a turbine steamer. It is useless also to point out that many people in the old days were badly housed. If it were so—and all will admit it was largely because men would not, or could not, pay the market value for more and better accommodation. They can do so now with the greatly increased wages, and the community has no more reason to supply the population with houses at uneconomic rents than to present it with free food or clothing. The State which does so is doomed to bankruptcy, and, if so, the largest and most generous housing policy will be of no avail.

We say openly and unreservedly that if, in consequence of a continuous reduction of output, the working classes make it impossible to house the people, no fear of threats of revolution should prevent the State from refusing to help those who will not help themselves. The policy we advocate can be expressed in a nutshell: The repeal of the Finance Act; a more equitable system of rating, relieving the enterprising man who develops property and so creates value for the community as well as for himself; and the end of spoon-feeding and subsidies. If the latter can, under the exceptional circumstances, be sanctioned, they should be fair and equal subsidies paid to all, without distinction, who provide what is required, and should be limited to an amount which represents the sum which has to be paid for housing now, as compared with that which will be current when building prices have been reduced after a certain number of years. The State must not compete with its subjects in matters of housing any more than it must supply any section of its subjects, who are not incapable or helpless, with free food and free clothes. This is our answer to the problem which Sir Charles Ruthen states and as to which he draws what we hold to be entirely unfounded conclusions.

But we are with Sir Charles Ruthen to a certain extent in his concessions as to types of construction. Unless the difficulties of importing sufficient timber are insuperable, we have no doubt that the American and Canadian type of timber house, which is rightly stated as sufficient for the homes of 75 per cent. of the

American people, is the best type on which to build here. Speed in construction, dryness, and sufficient durability are all in its favour; but we dissent from Sir Charles in his assumption that the American type needs modification for adoption here. He speaks of prejudices; well we know that such exist, but they are the result of ignorance, and will gradually disappear before demonstration. We see no reason why the timber house should be treated with a skin of brick, a coat of stucco, or a false screen of thin half-timber work. All these expedients appear to us totally wrong in principle, and unæsthetic in fact. From Colonial days onwards, America has built her houses of wood framework, frankly covered with wooden shingles and wooden clapboards, and with these simple materials has succeeded in producing houses whose beauty and suitability will hold their own even when compared with our brick-built houses here. More than this, the Americans, working on one type for the whole span of their history, have reduced the science of a type to its elements, and if the cost and supply of timber suffice, we can hardly do better than follow suit.

We quite agree with Sir Charles that our newer and smaller houses are mere skins of what in past days were carried out with thicker walls and ampler materials, and driven by necessity, there is no reason why we should not use means which our ancestors would have used in a similar case.

The same reasoning applies to the frank consideration of the various methods of using concrete blocks and other forms of construction which architects are a little disposed still to side-track, and to the full consideration of pisé and other types of construction unfamiliar to us.

Stone is a natural material, the use of which is limited by the cost of quarrying and of dressing; but bricks are an artificial material, which, if mankind had adopted a conservative standpoint thousands of years ago, would never have been used in building at all. The concrete block, like the brick, is an invention due to man's ingenuity, and it is for us to-day to find out how far it and other materials can be best employed in the service of mankind. It is not enough to condemn its colour, which can, in a measure, be varied at will within limits; or its texture, which also is partially within our power to vary. Nor is it necessary, as some assume, to employ it in courses of unvarying thickness any more than we find it necessary to quarry our blocks of stone of the same size and shape.—*The Architect.*

Sir Charles Ruthen had a good audience at The Society of Architects, and a useful discussion followed the reading of his paper, during which he certainly made out a good case for his system of house-building, which still seems imperfectly understood by some who report or comment on it, without taking the trouble to understand it. All Sir Charles claimed, we think, he effectually demonstrated was attainable. A perfectly dry, inhabitable house, ready for its inmates in thirty days, at a considerably lower cost than that of a brick or stone house, would certainly help to provide the houses which, so far, are being built so slowly, even if it did not establish a reputation as a lasting solution of our present difficulties. The system has little in common with the ordinary wooden house about which its friends and foes are at loggerheads. It seems specially suitable where, as in the colliery districts, the safety of the foundations is doubtful in the face of far too probable subsidences, and, given reasonable precautions there is, in our opinion, little to fear from fire. Sir Charles Ruthen is a clear and cogent speaker, and his replies to one or two who followed him were tinged with good-tempered irony which the meeting enjoyed, particularly his response to the plea of one gentleman whose admiration for the thorough ventilation achieved thereby prompted his defence of the porosity of bricks!—*The Building News.*

Wooden Houses and Others.

By George E. Clare, M.S.A.

The chief advantage of Timber Houses is that they can be erected rapidly after the material is delivered in sections, and foundations are ready. For example, I designed and erected a complete 5-roomed detached wooden cottage at a Royal Show, in 5 days, and the same cottage was erected at the first "Ideal Home" Exhibition in 4 days. It contained a good living room, kitchen and offices, and 4 bedrooms, it was rough cast outside and had a tiled roof.

A few years earlier, I designed and erected six semi-detached timber cottages with concrete party walls on a small holding in Essex, with living room, parlour, scullery, pantry and offices and 3 bedrooms.

Some of the disadvantages of Wooden Houses are that they are not economical in total initial cost as compared with concrete or with some special systems of brick construction. It should be remembered that it is principally the *outer walling* that is affected by any variation in construction ; the foundations, roof, floors, windows, doors, chimneys and fireplaces, sanitary and other fittings must of necessity be practically the same in all cases.

The prices quoted in newspapers of £250 and £400 for charming Canadian bungalows are misleading, as such prices are obviously the price F.O.B. in Canada ; and when the cost of freight, transport, foundations, erection, drains, fittings, plumbing and decoration is added, I doubt if there is any saving on a similar house in some form of modern permanent fire resisting construction.

The cost of upkeep is considerably more ; there is more risk of decay, painting is a very heavy item. They are more liable to destruction by *fire*, the insurance rates are very high, and they are more subject to the attacks of rats, mice and other vermin, and also dry rot.

The structures being more or less temporary and combustible, are a less profitable permanent investment for the Government and District Authorities than more permanent buildings.

It is generally forgotten that the many charming examples of old timber cottages in this country are built mainly of good old English oak, and this is a vastly different material to the ordinary deal used in modern frame houses.

My next experiments were with a combination of rot proof timber and concrete, and numerous cottages were erected on this system, including a semi-detached pair in Essex, which were formed of five slabs, comprising the front and back, two sides and party walls; these were formed horizontally, complete with windows and doors, and then hoisted into a vertical position and bolted at the angles. They were rapidly erected and quite substantial, but the cost of tackle and hoisting counter-balanced any saving in other respects.

I then tried two systems of light steel reinforcements combined with solid concrete walls ; and many examples are standing to-day of these in this country and Ireland. The skeleton was formed first and the filling done afterwards, while the roof was being constructed.

The first attempt was a bungalow cottage on the Letchworth Garden City, one of the first built, with 7in. outer walls ; it had an ingle nook living room, kitchen, offices and 3 bedrooms and tile roof.

Twelve cottages were erected in Ireland on a slightly different system, and also a large 3 storey house with outer walls, 8in. thick.

At that time, I was also trying solid concrete blocks, and erected a pair of villas in Southend. These were satisfactory, but I did not see much reduction on the cost of brickwork, and abandoned that system as impracticable.

I then tried a system of reinforced concrete posts, to form the skeletons and support the roof plate, the spaces between being filled with double concrete slabs. This system provided fire and weather resisting structures and had some good features, but it did not altogether satisfy me.

The concrete walls I found were more or less subject to condensation in certain weather conditions, especially in the humid atmosphere of Ireland. I therefore turned my attention to brick constructions.

Owing to the porosity of brick I favoured the continuous cavity, and invented an impervious double dovetail shaped key to bind the two walls together, as metal ties will rust through eventually in the moist air of the cavity.

I found this construction to be very strong, weather proof, and satisfactory ; and it was used in the erection of many houses. The cost was, however, rather heavy, and the conveyance of sound through the cavity a disadvantage. For economy in Bungalow cottages, I used the brick on edge instead of flat with a 9in. brick for bonder to form a 9in. cavity wall and 6in. bonder to form 6in. solid wall. I also invented a "Z" shaped "self-bonding" brick for building up very strong solid 6in. walls by unskilled labour and supply pouring liquid cement.

As a result of this lengthy and varied experience, I have recently evolved a system of construction which is approved by the Government Construction Committee, the Ministry of Health and District Councils. It consists of cavity blocks formed of compressed and *practically impervious brick earth,* which can be made with one quarter the clay and coal and in half the time of ordinary bricks. It is a system by which complete structures can be erected without timber if desired, except for doors.

Owing to the extreme lightness as compared with ordinary brick, the cost of transport is greatly reduced, and as each block is equal to eight bricks, the labour and mortar are saved, and foundations one half the size are sufficient.

It has been proved by tests that water played on from a hose failed in six days to penetrate a wall of this construction, whilst in a similar test the water went through a 9in. brick wall in three days. As for strength, a 6in. wall will stand six times the weight that is likely to be imposed upon it.

The cellular air cavities are very valuable for insulating heat and cold and maintaining the interior cool in summer and warm in winter, thus economising fuel.

The joints in this system both horizontal and vertical are interlocked and jointed with liquid cement in a very simple manner, the joint is concealed inside the block, so that the edges come close together and plaster can be omitted.

The joints have proved to be the strongest parts of the wall, instead of the weakest as in the case of an ordinary brick wall, and when built up the wall is like a monolithic slab, strong, rigid, imperishable, fire and weather resisting.

Outer walls 6in. thick are ample for a two storey cottage and bungalow, and 3in. for all partitions. Walls, 4½in. thick are sufficient for one storey cottages, and 34 were built at Woolwich in this way with tile roofs, which worked out cheaper than temporary wood cottages built of timber framgin. As to speed : the walls of one pair of these cottages were carried up from damp course to roof in one day.

As an instance of actual cost : these cottages with 6in. walls and slate roofs are now being erected in suburban districts, and the cost, including drainage, foundations, etc., is found to be not much more than temporary converted hutments when every item of cost is included.

One storey cottages with hall, living room, scullery and offices, 3 bedrooms and bathroom, all to Government requirements cost about £560 with house drains, hot and cold water supply, all fittings, electric light and gas supplies, cupboards, dresser and decorations.

Two storey cottages with the addition of parlour and larger bedrooms cost about £660 all told.

Twenty of these cottages are to be erected in one district in 3½ months ready for occupation. These will be permanent structures of good appearance; I therefore fail to see what can be gained in economy, with either cost or time, in substituting combustible timber structures, which in my opinion are not suitable for our damp changeable climate.

I may say the principle adopted for these blocks is not a new one, except for this country. Cavity blocks have been in use in Canada for quite large buildings for 20 years ; also in France, Italy and Brazil, and those who have lived in houses built in this way much prefer them to houses with solid walls.

Not only can such houses be erected much more rapidly than ordinary brick houses, but they can be safely occupied immediately on completion.

Professional Federation in Australia.

The Overseas Dominions have long led the way in matters of professional reform and progress. South Africa and New Zealand with Statutory Registration, and Australia with its Federated Council of the Australian Institutes of Architects, the objects of which are to represent the profession in the Federal sphere, to bring about uniformity in Australian practice, to represent generally the views of the profession, to maintain its integrity and status, and to suppress dishonourable and unprofessional conduct and practice.

The Federal Council consists of two representatives from each of the six existing State Institutes in New South Wales, Victoria, South Australia, Queensland, West Australia, and Tasmania, and any others which may be formed from time to time. It is empowered to deal with matters of Federal interest, and those affecting two or more Institutes, and any question referred to it by any Institute, and its ruling is final and binding on the Institutes.

The Council is elected annually, and meets at least once in each year and oftener as required.

It is interesting to note that the formation of the Federal Council has been accomplished during the War, and arose out of an invitation from the Federal Government to the President of the several State Institutes in May, 1914, to meet in Melbourne to select a Chairman for the Adjudication Board in connection with the proposed Design Competition for the Federal Parliament House at Canberra. Subsequently the delegates took steps which resulted in a meeting of representatives at Sydney in November, 1914, at which it was decided to form the Federal Council. The first meeting of the new body was held at Melbourne in 1915, and it is recorded that a letter was received from Mr. J. E. Burke, M.S.A., local Hon. Secretary of The Society of Architects, conveying congratulations and hopes for the consolidation of the profession.

The scale of professional charges adopted by the Federal Council is more liberal than our own, and contains some new features. For instance, there is a charge for preliminary drawings and estimates, as well as for the contract drawings, etc., in the event of the work being abandoned. All drawings, including those supplied to the contractor, are to remain the property of the architect. There are more liberal fees for small jobs, alterations and special work, and it is inferred that experts will be employed when required and their fees paid by the employer.

Apparently Australian architects do not take out their own quantities, as there is no provision for fees for so doing.

Houses without Chimney Stacks.

Mr. Sadgrove's paper, read before the recent Conference of the British Commercial Gas Association, was a complete condemnation of the wasteful coal fire which pours out of the chimney to the defilement of the surrounding atmosphere, in the shape of smoke and sulphurous acids, the chemical substances which could be put to so much better used by the distillation of coal at the gas works and the distribution for heat purposes of its purified essence, gas. Was it not time, therefore, he asked, that the architect in planning the house of the future should leave out the coal range from his plans and substitute apparatus that would do its work without defiling the atmosphere, which could be relied upon to be ready for service at any hour of the day and night, without making any work for anybody ? Another consideration was the need for economy in building, and he pointed out that this could be effected by the abolition of the chimney breasts and smoke stacks required for carrying off the products from coal fires. This, he emphasised, could be readily achieved by the substitution for the chimney breasts and chimney stacks of smaller flues adequate to the carrying off of the products of combustion of gas fires. It therefore appeared to him that architects in designing housing schemes at the present time should take advantage of the fact that gas fires were all that would be needed in all the rooms, other than the living room ; and that the Ministry of Health and the building authorities generally should give ready consent to such proposals when put before them.

Mr. Sadgrove deprecated the cry that would go up from some hesitating souls that this was burning our boats with a vengeance, remarking that whilst ten years ago he would certainly have hesitated to advocate such a revolutionary, or as he would prefer to say, evolutionary step in house construction, the enormous strides that had been made in gas fire efficiency and the widespread and growing popularity of that method of heating which had been witnessed in the last few years had convinced him that a policy which was right from the communal point of view and was sound from the individual point of view would be generally acceptable to the inhabitants of this country if put into practical operation by enlightened housing authorities.

This brought Mr. Sadgrove to a highly important declaration. He was, he said, prepared to plump with his colleague, Mr. Swain, the architect to Messrs. Rowntree, of York, with Mr. John Murray, architect to His Majesty's Office of Woods and Forests, and with other architects who had given the matter careful consideration, for the abolition of the chimney stack in respect of every room in the house with the exception of the living room. From the point of view of economy, added Mr. Sadgrove, as much as £25,000,000 could be saved in labour and bricks by the adoption of the policy that he advocated.

From the heating problem Mr. Sadgrove passed to that of lighting. For many classes of property he said, he would without hesitation advocate electric light, and electric light would be demanded by the occupiers, but it had to be remembered that the great majority of the homes that had to be provided under the housing schemes now being considered up and down the country would be occupied by those to whom economy was a prime consideration, and that in the building of those homes economy must be also a prime consideration to the authorities. Taking these facts into consideration he believed that the householders generally would, in the cases under consideration, vote by a large majority for gas rather than electricity. Apart from that consideration, he reminded the Conference that a great economy could be effected in the equipment of the houses to be built if the same mains, services and internal pipes that were required to give the fuel supply to the home were utilised to give the supply of artificial light instead of a further heavy expense incurred for the laying on of cables and wiring for the supply of electricity.

Aerodrome Lay-out.

By Captain M. G. Kiddy (Late R.A.F.), Assistant Secretary.

Some of the illustrations for Aeroplane Hangars which one sees in contemporary papers are, from the point of view of impossibility, rather amusing. In one of them the Hangar, a tent-construction of the " Bessonneau " type, is shown in the middle of the aerodrome, with both sides open. One Handley-Page is depicted in the act of landing into the Hangar from one end of the aerodrome, whilst a second "takes-off " from the other side of the Hangar, executing an alarmingly quick turn on the ground as it does so.

This might be feasible if the wind were considerate enough to remain consistently in one direction. Aviators know, and architects desirous of faciltiating the quick landing and getting away of machines should learn, that an aeroplane rarely leaves the ground or lands in the same direction for two days running, the direction being governed by the quarter from which the wind is blowing. " Side-slip " and " stunt " landings are no longer possible under the new Air Ministry Regulations for the control of Civil Aviation.

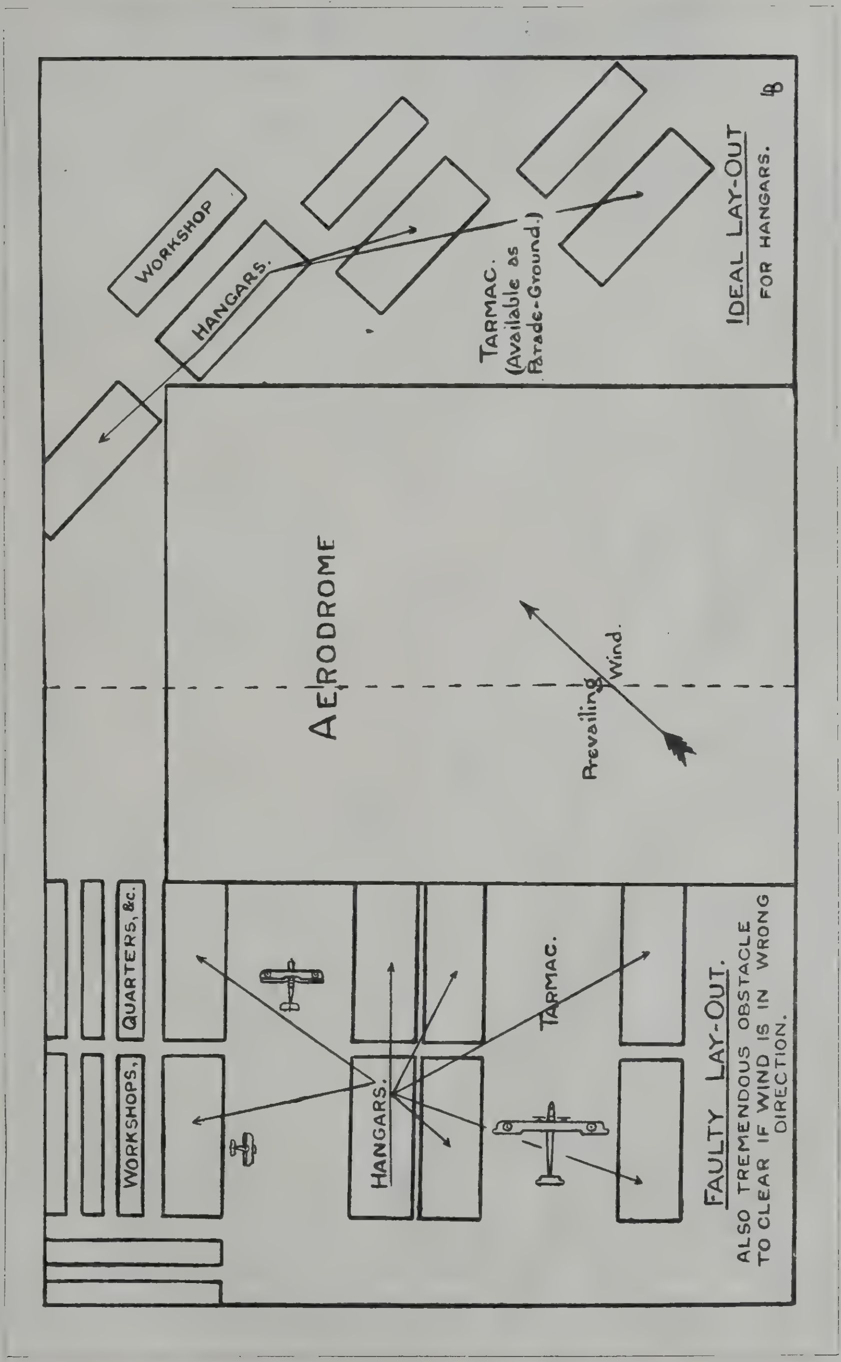
The bird's-eye view of the aerodrome lay-out, whether imaginary or not, which generally accompanies the illustrations is often good from an artistic point of view, but not from that of the aviator. The position of the offices, dwelling quarters, etc., is of comparatively secondary consideration in planning the lay-out of an aerodrome, though it is naturally more convenient to have them, particularly the workshops, in as close proximity to the Hangars as possible. But it is the Hangars themselves that matter. In typical illustrations they are built in several parallel rows, face to face and end to end, with the edge of each row of Hangars against, and at a right-angle to, the edge of the meadow-surface of the aerodrome.

This would mean that all the machines would have to be man-handled to and from their sheds—a state of affairs that would cause an R.A.F. commanding officer to tear his hair! An aeroplane, particularly of the twin- or multi-engined type, takes a great deal of man-handling, any number up to twenty men being required to move the ordinary twin-engined Handley-Page ; and this is a waste of power, to say the least of it. In addition, the machines in the sheds farthest from the edge of the aerodrome would have to be wheeled along some 200 yards of the tarmac before reaching the freedom of the meadow.

An ideal lay-out, from an aviator's point of view—which is the point that matters—must include Hangars, every one of which opens directly on to the meadow-surface of the aerodrome, so that machines can leave the sheds under their own power, with a minimum of man-handling, and can then taxi straight away preparatory to " taking-off."

Practical considerations are of first importance to the average aviator, but there is nothing to prevent an artistic lay-out with the Hangars in the proper position. Too much importance cannot be attached to the latter consideration, even if, as is the case in the majority of aerodromes, two sides of the meadow are taken up by the sheds. And the lower the hangars, and the flatter the roofs, the better will the pilots be pleased. One has known personally pilots who have been killed by gables on the roofs of hangars, where a flat roof would have saved both pilot and machine.

Another point worth noting is that, where possible, the row or two rows, of hangars should open into the prevailing wind, so that nine days out of ten the machine can fly straight from its shed into the air, with no obstacles to pass over before it gains height. This has additional recommendations, such as facilitating the "running-up " of engines into the wind, without turning machines round, and similar technical details.


WORKSHOP
HANGARS.
TARMAC.
(Available as
Parade-Ground.)
IDEAL LAY-OUT
FOR HANGARS.
AERODROME
Prevailing
Wind.
QUARTERS, &c.
WORKSHOPS.
HANGARS.
TARMAC.
FAULTY LAY-OUT.
ALSO TREMENDOUS OBSTACLE
TO CLEAR IF WIND IS IN WRONG
DIRECTION.

The Society of Architects South African Branch.

The Registration Question.

The Annual General Meeting of The Society of Architects, South African Branch, was held at the Offices of the Association of Transvaal Architects, Exploration Buildings, Johannesburg, on Monday, the 20th October, 1919, Mr. H. G. Veale, President, in the Chair.

The Minutes of the last Annual General Meeting, held on the 17th December, 1918, were read and confirmed.

Annual Accounts. A statement of accounts for the twelve months ended 30th September, 1919, was presented by Mr. Burton, the Hon. Treasurer, showing a balance at Bank of £147 13s. 6d., and was adopted.

RECEIPTS AND PAYMENTS. 1ST OCTOBER, 1918, TO 30TH SEPTEMBER 1919.

	£	s.	d.		£	s.	d.
To Bank Balance, October 1st, 1918	114	15	3	By Rent of P.O. Box, Prize Fund and Technical Papers	3	0	0
,, Subscriptions : Moiety of Subscriptions received from London :				,, Delegation to Cape Town Half share of Expenses paid Association of Transvaal Architects (Registration)	25	0	0
Year 1917	32	16	3	,, Bank Balance, 30th September, 1919	147	13	6
,, 1918	28	2	0				
	£175	13	6		£175	13	6

Examined and Found Correct—
C. DOWSETT,
17/10/1919.

H. G. VEALE, *President.* D. M. BURTON, *Hon. Treasurer.*

The retiring President, Mr. H. G. Veale, in the course of his valedictory address, said that the most important architectural subject which they were interested in was Registration for the Union. They were fortunate in the Transvaal in gaining Registration fairly expeditiously, but he feared the matter of its extension throughout the Union would be a longer process than they would desire. One of the reasons for this was that an insistent minority of architects at the Cape were actively opposing the efforts of a very great majority of the architects who are convinced that Registration was necessary, not only to the profession but to the public.

Conferences had taken place at the Cape and Natal at which the Society was represented. These Conferences were successful in upholding the principle of Registration, and resolutions were passed agreeing to go forward vigorously in the effort of presenting a Bill to Parliament at an early date.

The Branch Council not only watched with interest such progress, but were constantly in consultation with the other architectural bodies concerned. In fact, it may almost be said that the Branch Council was the guiding spirit of Registration. Another important matter arising out of Registration was the question of plans and documents which must be submitted to Town Councils and Municipalities for their approval, being prepared only by qualified architects. It was common knowledge that a large preponderance of the plans thus submitted were prepared by persons whose only care was to see that the regulations and by-laws of the Authorities were complied with ; and this, as barely as possible. That meant bad architecture, careless building, cheap and shoddy workmanship and materials, and, in point of fact, was largely responsible for the development of slums. Nearly always it meant ugliness and mediocrity in our domestic buildings.

Much time and effort has been spent in urging the Town Councils of the Transvaal to refuse acceptance of any plans unless they were by Registered Architects, and it was encouraging to note that in some cases, the request had been readily granted, and some of the principal towns of the Transvaal now had by-laws covering this matter. In some places the movement had met with opposition. Such remarks as " making a close profession" or " a monopoly," etc., had been raised, but he failed to see why they should not openly and with all frankness make it known that, while they felt the public interests would be better served, at the same time they were undoubtedly acting in a Trades Union sense, and why not ?

Architects did not wish to poach on, say, a Registered Plumber's trade : indeed, they would not be allowed by the Authorities to do so, nor do they desire to enter into competition with any other " closed " callings. Why, then, should architects be expected to allow much of their legitimate practice to be filched from them by men, whose only qualification is that they can " draw a plan "?

The drawing of plans is not architecture, and this is a point a little difficult to make clear to the layman. An architect's training, not only fits him to " draw plans," but more important than all, it fits him to design houses where the occupants shall have the greatest comfort—houses which will certainly be pleasing and artistic and altogether more livable—and at no greater cost except his very modest fee.

The Society is represented on the newly formed Town Planning Association of the Transvaal, and there is little doubt that very good work will be done by it. Already its usefulness has been recognised, and several new township owners have approached the Association for advice before definitely laying out their new townships.

He hoped all the Members would take an active interest in this Association, because Town Planning was largely an architect's job, besides being a fascinating study.

Closely allied with Town Planning was the question of housing schemes for the people. In common with other parts of the world, South Africa was faced with an astonishing shortage of houses, and to-day's position called for house building on a large scale. Many proposals had been put forward. There were suggestions that Municipalities should undertake building schemes to sell or let to burgesses. Another idea was that the Municipalities should act as Building Societies, lending money at a small rate of interest. The question was urgent and the need a crying one—but it would be a great pity if things were undertaken too hurriedly. In this matter the architects have an opportunity to bring not only expert and calm judgment to bear and matured advice to offer, but also to try and see that whatever scheme of house building is taken up by public bodies, it shall be the first consideration that the asthetic treatment is studied and that the work of designing houses should be given to qualified men.

One of the reasons why houses are not more plentiful in Johannesburg is that building houses for investment does not show a sufficient margin of profit.

It had often struck him that large Insurance Companies could find a safe and satisfactory outlet for their capital in this line. The Companies could offer decent facilities to their own policy holders and to prospective policy holders in the way of erecting homes on a hire-purchase system. Or the Company might develop an Estate of their own for selling or letting to their policy holders. Model Estates near large towns, with houses, schools, and churches, etc., could be made beauty spots, and make a very attractive method of gaining new insurance life policy business.

In regard to the recent three months' strike in the Building Trades, it was not clear whether masters or men were justified in allowing the trades to be hung up for three months on the questions at issue. That everybody suffered without adequate reward, was pretty well apparent. Architects, as much as any body. Some few architects made an effort to bring about an understanding between masters and men, but although disinterested, they met with very little encouragement or success. During the strike he had many conversations with the men and their leaders, and was convinced that under existing trade conditions it was well nigh hopeless to expect to eliminate strikes by arbitration.

His personal opinion was that until they had some system of co-operation between masters and men on a percentage basis of profits earned and losses made, they would be open to men becoming dissatisfied with their lot.

Anyway, the world was inclined more and more to reasonable co-operation and socialistic action, and the sooner that spirit was recognised, the sooner they would have a contented working man, and a contented working man meant satisfactory, efficient, and smooth working on their jobs.

As architects, they were much concerned in the establishment of new industries in South Africa. Those who resided in Johannesburg, while fully appreciating the many new channels of industry started during the war, with every prospect of continuance and enlargement, would welcome a more encouraging attitude, if possible, on the part of the Authorities. New industries frequently require a certain amount of fostering. They might require cheap water, cheap power, etc. Johannesburg should aim at supplying these facilities. Johannesburg should indeed be the industrial hub of South Africa as he believed, given the Vaal River water scheme completed ; from a truly progressive Town Council, composed of men without personal axes to grind, such a desirable outlook might be expected.

A recent industrial effort which they had followed with interest in common with their engineering friends, was the effort to inspan the water power of Howick Falls in Natal for industrial purposes. If this enterprise proved successful, it might be hoped that the hundreds of Falls in that country, which were running to waste, might be inspanned and help in some measure to make up the great want of raw labour.

The late President, Mr. Sinclair, during his year of office, worked hard for the establishment of a Technical Societies House. During the past year this scheme had so far made headway that a strong committee was engaged in bringing the idea to a head, and he was hopeful that in the near future they, together with other Technical bodies, would be properly housed in a building adapted to technical and scientific research and environment.

He asked for the continued support of the Members to the officers of the Branch, and specially he desired to thank Mr. Donaldson for acting as temporary Hon. Secretary during Mr. Harris's unavoidable press of Town Council work. The Branch also desired to thank Mr. Harris for his long and able services as Hon. Secretary, which position he was giving up owing to other urgent public duties.

A short discussion arose out of the address, in which Messrs. Waugh, Burton, Sinclair and Donaldson took part.

The majority of these speakers, while agreeing with Mr. Veale regarding his remarks in respect to using the water falls of the country for power, were very much averse to industrial buildings being erected in close proximity to falls, and thus tending to the disfigurement of many beauty spots.

Mr. R. Howden, Senior Vice-President, in the unavoidable absence of the President, Mr. McWilliams, of Port Elizabeth, took the chair.

The following gentlemen were elected to office for the ensuing year :—

President :	Mr. W. F. McWilliams.
Senior Vice-President :	Mr. R. Howden.
Junior Vice-Presidents :	Messrs. F. J. Ing and Frank Scott.
Council :	Messrs. J. F. Beardwood, D. M. Sinclair, E. H. Waugh, and H. G. Veale (*ex officio*).
Hon. Secretary :	Mr. J. S. Donaldson.
Hon. Treasurer :	Mr. D. M. Burton.
Hon. Auditor :	Mr. S. C. Dowsett.

Mr. McWilliams, in his Inaugural Address, read in his enforced absence by Mr. Howden, said he was the first Member outside the Transvaal to be elected to the office. He looked upon this as a compliment to Members practising at smaller centres.

The chief reason for the creation of the Branch of the parent Society was to forward the policy of Registration in this country, and there can be little doubt that the movement was gradually being brought to fruition. This was due largely to the efforts of The Society of Architects, and in this country the Cape Institute of Architects and the Transvaal Institute were bringing the matter very much to the front, and this coming year might see very important developments.

The upheaval of all normal business caused by the war had resulted in an opportunity being given to men to switch on to another occupation from that in which they had previously been engaged, and in this way many architectural draughtsmen and architects' assistants and improvers had thrown over a career which they had found to be over-crowded, and directed their energies into one or another of the many openings in other paths of life more promising in immediate results. This, at any rate, was the conclusion he had come to owing to the present shortage of assistants all over the Union.

The one subject that called for attention more insistently than even Registration was the question of skilled labour for the building trades. There was no likelihood of any early relief in the shortage by the introduction of skilled artizans from over seas, owing to the building boom in Europe and America, and Housing Schemes were the order of the day.

The only other course was the training of men in the Union, by the establishment of a properly thought out Apprentice System, and the more general introduction of technical education.

Architectural practice would become almost useless if the craftsmen are not forthcoming to execute the designs, and as a profession they should do all they could, jointly and individually, to assist the Master Builders' Federation in securing a proper system of apprenticeship by the passing of an Act of Parliament for the control of apprentices in their relations to their masters.

The great problem before the local Authorities almost in every town in South Africa was the Housing of the workers. It was a comparatively new problem in that country and one that would be much more difficult of solution because of the three classes of labour, *viz.*, White, Coloured and Native; and if in England with only one class, the problem had not been solved after some two or three decades, what hope had they of ever finding a solution? He thought there was no permanent solution on Municipal lines. Any partial provision of housing accommodation by means of Government aid could only mean the thin edge of the wedge of general housing by the State. The solution of the problem, however, was one not within the province of architecture—it was a question not of providing the houses, but the funds wherewith to build them.

There was, nevertheless, one matter intimately associated with the question of Housing that they, as a profession, should watch unceasingly, and that was the question of Town Planning.

No housing scheme, however costly, would be a success if it is not laid out on proper lines, with provision for all future possibilities of extension and the many other points dealt with in a proper system of town planning. In this connection it was gratifying to learn that the Commissioners recently appointed by the Government to tour the Union and glean information in regard to the Housing question had the matter of town planning well to the front in their enquiries.

He desired, on behalf of the Society, to express the gratification of the profession to Dr. Viljoen, the Superintendent General of Education, for the attitude he had taken up in regard to artistic training, and its value to a Nation in its commerce, and in the general uplifting of the people. It is in this direction more than in any other that a public appreciation of good architecture is to be found.

In discussing some points of this address, MR. HOWDEN said : Tradesmen were undoubtedly scarce and they cannot look to Australia or England, as formerly, from whence to draw supplies, and he much regretted that all over the world there was apparently a disinclination for boys to enter building trades. He had recently been informed that in Australia, out of 1,000 boys leaving school, only *one* went into a building trade. They were very much in the same position in South Africa. He thought very serious consideration should be given to the position, otherwise, in a few years, they would be in the unhappy position of either being without competent tradesmen, or very inferior workmen.

MR. WAUGH said the Principal of the Training School of Carpenters had told him that there was a very small number of pupils presenting themselves for training—only 30 boys being at the present time undergoing training as carpenters and joiners. He thought the system of indenturing youths was the most satisfactory.

MR. SINCLAIR thought a co-operative system, as suggested by Mr, Veale, would perhaps induce boys more readily to offer themselves, and also be a greater encouragement to parents to allow their sons to enter the building trades.

MESSRS. BURTON AND DONALDSON agreed that there was an undoubted shortage of tradesmen, and considered parents were largely to blame for not placing their boys to the trades, though it was understandable, for during the first few years somewhat slow progress was made in earning money. Mr. Burton knew of instances where boys starting in Trades Schools were taken away by their parents and put on as lift boys, where a salary was immediately available, but it was a " blind alley " occupation.

MR. VEALE favoured the old apprenticeship system, augmented by a certain amount of time spent at Trades Schools. He thought that if boys could be got to realise that carpenters, bricklayers, plasterers and other building trades were in reality far better off financially and more independent than clerks or office workmen, there would be more boys offering themselves for the trades.

It was resolved to get in touch with the Master Builders' Association, Federation of Trades, and Trades Schools, with the object of discussing the position.

Allusion was made at yesterday's meeting of The Society of Architects to one or two important phases of the housing problem. Mr. W. F. McWilliams, for instance, referred to the slow progress made in England in the last few decades, and seemed to be pessimistic for the future of the question in South Africa, arguing that if England had not been able to find the key to the puzzle the likelihood of ourselves doing so is somewhat remote. There are, however, particular and urgent reasons why efforts at least as energetic as those now being taken at home should be put forward in the crowded centres of the Union—reasons to which Mr. McWilliams duly referred. If overcrowding and the inhabiting of unsuitable houses is an evil in a European town for reasons industrial, economic and social, it is even a greater menace in a country with a large native, coloured and Asiatic population to complicate the matter in the urban district.

* * *

It is open to question that the popular conscience has been somewhat effectively stirred, chiefly through the epidemic of a year ago, and the revelations it brought in its train of the existence of town areas which are no more than breeding places of disease. Public bodies have certainly "got a move on." At the Cape there is a substantial housing scheme toward; at Bloemfontein the spirit at least is willing; and here in Johannesburg authority is sought to raise money for a really considerable instalment of reform.

* * *

But even when the funds are available and have been allocated, the business is not finished, and we should be grateful for the architects' reminders of other necessities in the case. It is, for instance, not the slightest good evicting tenants and pulling down their deserted houses till a fresh asylum is prepared for them. Otherwise a new slum will arise somewhere else, and all the work will have to be done over again. Nor is it in consonance with modern and sensible principles simply to run up a barrack-like building and expect the lately dispossessed to imagine that their new house is a home. The town planner is as vital a person as the builder and contractor in these affairs. We want homes for the people that are not only habitable in respect to cleanliness and convenience, but are in the midst of suitable surroundings.

* * *

We have often been told that the tendency among Johannesburg youths (and their parents) is to "town trades," and the advice is frequently offered that more lads should be given a distinct bias towards the land, on the ground that as yet the urban industries and trades cannot be expected to absorb the whole product of the schools. Mr. Waugh's statement at yesterday's meeting puts the matter in quite a different light, so far as the building trade is concerned,and it is surprising to find that at the moment only thirty lads are undergoing training as carpenters and joiners. If this condition were to become permanent our next difficulty in the housing question would be to get sufficient labour. Even to-day, it is understood that current jobs have absorbed all available "hands," and the question may arise how shall we manage when the municipal housing scheme gets into its proper stride ? Here, too, as in so many other instances, the solution is by way of getting at the parent who still stands in need of a good deal of educating. As Mr. Veale pointed out, men in the building trade are financially better off than clerks or other workers in offices. It may be, of course, that the newer generation of parents have social ambitions for their sons, which they think are more likely to be realised by a not very profitable novitate as junior clerks. There are others, again, whose sole aim is to get their children into occupations of some kind at the earliest possible opportunity without reference to the prospects they have of bettering themselves later on—generally speaking, a dismal prospect enough. It is, in fact, the parent, more often than not, who should be blamed for allowing, if not persuading, a lad to take up a "blind alley" job which cannot possibly lead either to profit or prestige and the sole though slight and temporary advantage of which is that he can either save his father and mother the necessity of providing him with pocket money or can add few shillings a week to the family cash-box.—*The Star*, Johannesburg. *October* 30*th*, 1919.

An American View of Registration.

Mr. Charles Cressey, M.S.A., a member of the firm of Quayle Bros. and Cressey, architects of San Diego, has some pronounced opinions on California's Registration Law and its enforcement, or rather lack of enforcement. To quote:

"Time after time we read eulogistic words from other States and abroad, urging the registration cure-all for all architectural woes, and we, possessing both the cure and the woes, ask if it is the shadow or the substance of registration that has staked out its claims in California. There is no great amount of criticism heard, however, upon our Registration Act itself, which, though spineless and too tolerant for most of us, does at least give legal title and a defendable right to the name architect.

"That right and the lack of action in defending it is the cause of bitter complaint amongst architects, few of whom within my circle of acquaintance are without cases of personal loss and chagrin caused by unregistered men who care little for law and less for architecture. Accepting the California Act for what it is worth, I think I am expressing a general conviction in saying that architects should and could have greater protection than has yet accrued to the profession, if the State Board exercised its powers or showed even moderate aggressiveness against admitted evils.

"It is argued that the duties of the Board are purely administrative and do not include police duty or the collection of evidence. That is a cold, cold, inactive view of an Act, which is either protective, or is just a string of worthless words. If the State Board can only proceed against offenders upon formal complaint and definite evidence gathered by outsiders, that point of view is not generally known or accepted, and a service will be done by stating the fact and inviting co-operation of all interested. Too great a stress appears to be given to the letter of this Act and too little attention paid to the power of personal influence and leadership.

"Members of the State Board are individually respected, each having a record and standing in business life, which assures them a hearing on the subject in which they are specialists. So far there has been reluctance to assume this attitude of leadership, and few outside the profession know of their existence as a State Board of Architecture, or that they have charge of an Act primarily for the protection of the public.

"Most of the departments under State control are doing vital work in educational propaganda, going right to the public with practical reasoning and facts, and that public has never been in so receptive a mood as now. Everything from chicken-raising to safety-first ideals seems to be advised upon by State specialists, excepting only that art of sane and safe building on which public life is so thoroughly dependent. Prove to the public that direct cash loss, mental sluggishness, and low production follow imperfect planning as surely as they follow imperfect feeding—prove that half-bad planning is more dangerous than half-truths in speech—prove that architecture is the primary art of planning—that decoration is a supplemental art, and that this art of planning is the work only of men specially trained beyond the arts of practical building, at the cost of time, untold perseverance and personal sacrifice—prove, too, that a State certificate can be won only by qualification, be lost by misconduct, and is as unpurchasable as the Military Cross for valour—and we will need to worry but little over incompetent pretenders.

"This educational work is a duty and field in which the standing and authority of the State Board of Architecture is not merely essential, but is irreplaceable. Neither the A.I.A., the local chapters, nor the most earnest words of the architectural

Press, can ever give the tone or reach the ears of such a public as would the broad-mined efforts of a board acting in the public interest as distinct from the interests of architects. There is in this outline an expression of the new ideal in government—not repression, punishment, or interference with the public in class interest—but, helpful, truthful leadership, giving service to the many enterprising men and women who do or may build wrongly from simple lack of understanding. If the State Board is to remain a purely examining body, helpless against offenders, for want of a more drastic law, then architects are hopeless indeed."—*The Architects' Journal.*

Architects and the Building Trades' Parliament.

The Industrial Council of the Building Industry (Building Trades' Parliament) invited The Society of Architects to send two representatives to a meeting of the Industrial Council, held at York on the 25th November, when the question of the possibility of the organisations representing Architects and Surveyors becoming affiliated to the Industrial Council for the Building Industry was considered.

The Council appointed Mr. G. H. Wenyon, of London, and Major E. A. Pollard, of York, as the Society's delegates. Both these Members attended, and Mr. Wenyon was the spokesman on behalf of the Society.

The Meeting agreed that the R.I.B.A., The Society of Architects, the Surveyors' Institution and the Quantity Surveyors' Association should each have two representatives in the Building Trades' Parliament.

The Society and the Beaux Arts Atelier.

During the War the Atelier had to vacate its premises at Wells Mews on their being acquired for other purposes, and the work has since been carried on at the Society's headquarters at 28, Bedford Square, W.C., under difficulties, more particularly as regards the space which could be alloted for this purpose. In order to obviate this and to provide facilities for resuming the work on pre-War lines, the Council is extending the room hitherto used as a Library on the lower ground floor, and when the work is complete the Beaux Arts Atelier will have a self-contained studio on two floors, with a separate entrance from Bayley Street, and every accommodation for carrying on its very successful work.

It is anticipated that the Atelier will be in full swing early in the new year.

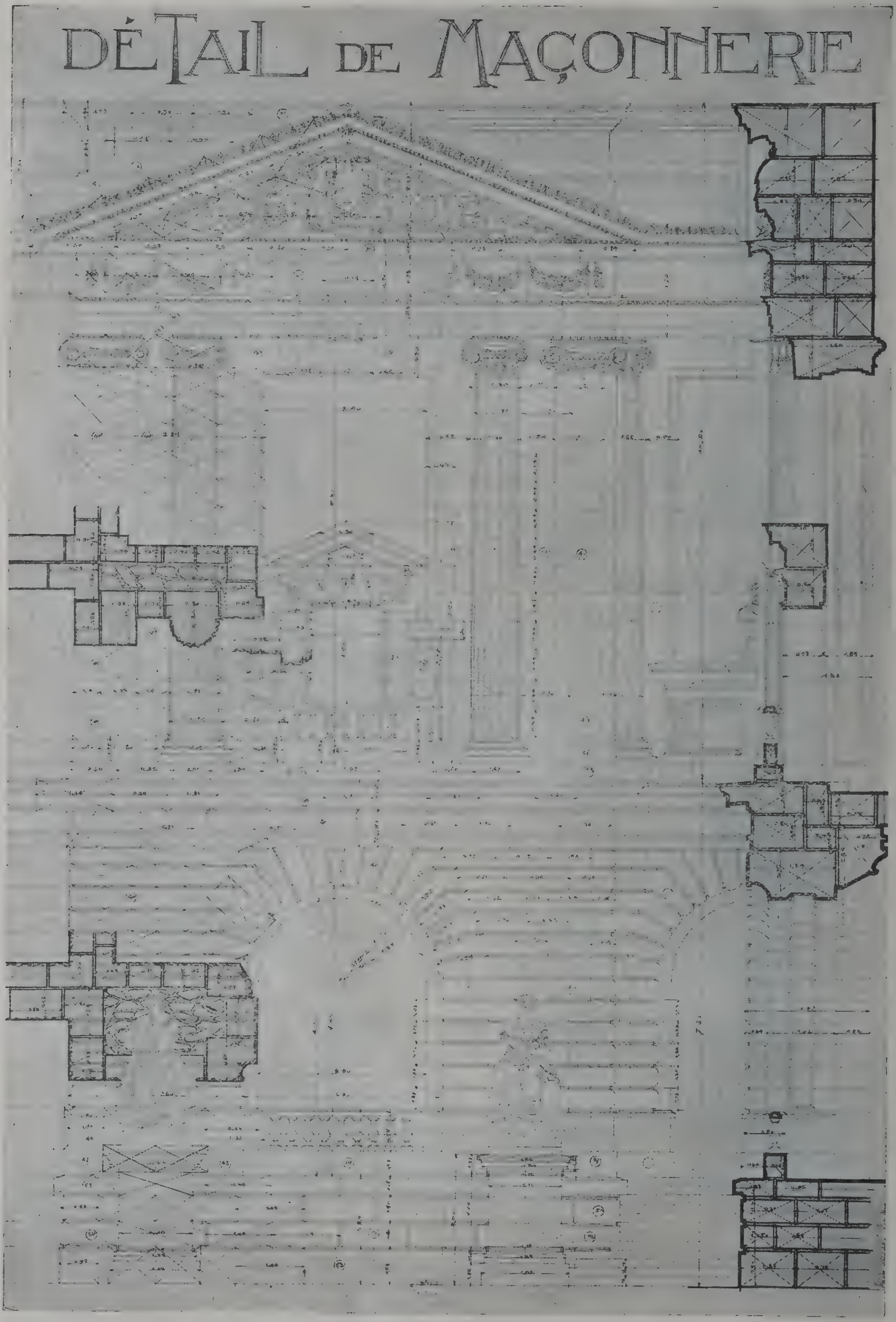
The Society's Library is being removed to the first floor rooms where the books and papers will continue to be at the Members' disposal, but under more comfortable conditions.

Professional Training for Ex-Service Men.

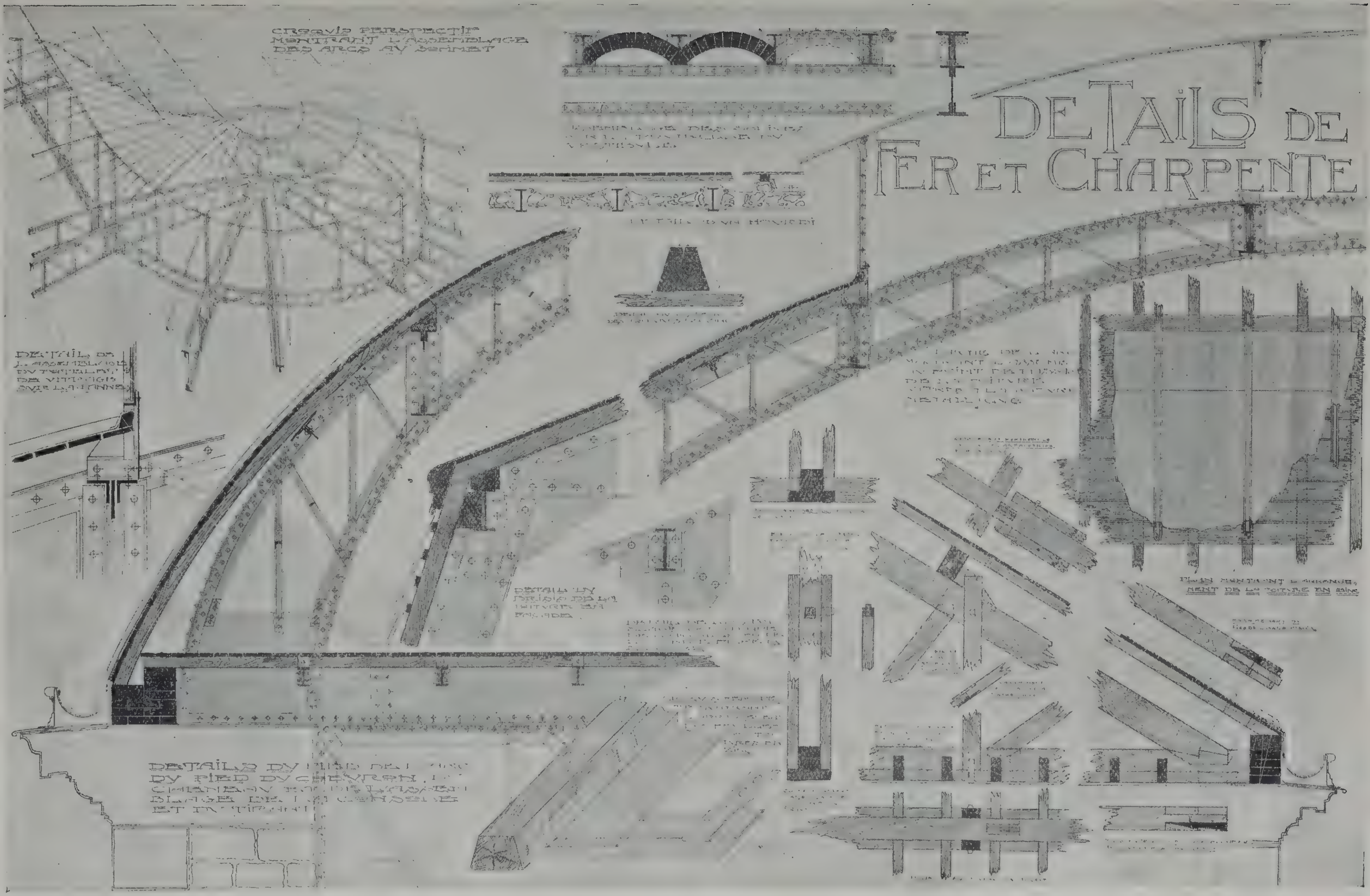
In response to a suggestion from the Ministry of Labour that Members of The Society of Architects should take suitable ex-Service candidates into their offices as non-premium pupils, the Council point out that the private pupilage system is being rapidly superseded by the architectural school, which offers wider educational facilities, especially if leading to further training on Beaux Arts lines.

The Society has long advocated the establishment in this country of a Ministry of Fine Arts for the support, *inter alia*, of a national school of architecture. This proposal has recently been supported by prominent public men and well-known architects with a view to an application being made for financial aid from the Board of Education.

A Government grant in aid of ex-Service men at recognised architectural schools might well be the first step in this direction.



FROM THE RECENT EXHIBITION OF BEAUX ARTS. DRAWINGS AT THE SOCIETY OF ARCHITECTS.



From the Recent Exhibition of Beaux Arts. Drawings at the Society of Architects.

Architects and the National Housing Scheme.

A letter from the Secretary of The Society of Architects has recently appeared in all the professional journals and in a slightly amended form in the principal London and provincial newspapers. It has aroused considerable interest in professional and other circles, and has been adopted by the Council of the Society as a basis for a letter which is being addressed by the Society to every Member of Parliament, protesting against the Government proposals, and calling for the removal of all restrictive legislation and Government control in connection with the building industry.

Members of the Society are reminded of the value of individual effort in support of any proposal put forward by the Society if they are in agreement with it. The Society's effort can be greatly strengthened by individual Members following up correspondence in the Press. The following is the letter referred to :—

"Luxury Building."

Sir,—A few weeks ago you were good enough to allow me to make a proposal through your columns for the formation of a Federated Council of architectural bodies capable of taking joint action quickly in any matter affecting architects. I believe there are some faint hopes of the proposal receiving further consideration at some future time, but in the meanwhile a matter has arisen which could at once have been dealt with by the proposed body had it been in existence. I refer to the Government's proposal to introduce a Bill this week for the purpose, *inter alia*, of stopping what is vaguely described as "luxury building" with the idea of concentrating labour on the national housing scheme, or, in other words, facilitating one form of private building enterprise at the expense of another. By the time this letter is due for publication the Bill will probably be before the House of Commons, and architects should be ready to support their Societies in any action which they may take with a view to having the Bill thrown out or amended as may seem best.

In my opinion the Government proposals will not accomplish the end in view, but will merely hamper still further the building industry and aggravate the existing artificial conditions caused by the Housing Act.

By all means let us get back to private enterprise in building, but let us do it by the removal of restrictions rather than by the further imposing of them on one section of the building community.

Probably the Government has not taken the trouble to ascertain the amount of housing already provided under great difficulties by private enterprise, and which probably compares very favourably with that accomplished by the Government with all its resources.

It should not be forgotten that there are many building owners engaged at the present time upon private building enterprises of a class which might to the narrow official mind be deemed "luxury building," and who at the same time are providing working-class housing in connection with their schemes.

For instance, a firm of architects in London have to my personal knowledge at the present time work in hand for new business premises, garages, alterations to property, etc., ranging in value from £300 to £12,000, and aggregating a total of over £21,000. In each case the building owners are providing cottages and flats in connection with these properties at an aggregate cost of over £24,000, and in some cases they are proposing to spend three times as much money on the cottages as they are on the "luxury building." The point is that if this "luxury building" is stopped, the housing schemes will not be proceeded with, and all concerned will be put to great loss and inconvenience. No doubt there are many other similar cases.

The remedy is not to subsidise one class of building and stop another, but to remove restrictions on labour, increase production, stop profiteering and unemployment doles, facilitate transport, repeal restrictive legislation, and restore to private individuals the right to carry on their lawful business. In the debate in the House of Commons there was much talk of mobilising all the housing resources in the country in support of the Housing Act, but there was not a single reference to the services which architects are capable of rendering in this matter if they are given a chance.

The Government's proposals mean that architects who have for many years suffered as the result of legislation crippling to the building industry, and who have all had their private work stopped for the past four or five years by the war, and are just beginning in some cases to take up the threads of their practice, are again to be penalised, quite unnecessarily, unless some strong action is taken by the representative architectural bodies, backed up by their individual members. Separate Societies can, and no doubt will, take any necessary action, but it could be made so much more effective if it could be directed into one channel with the whole weight of the profession behind it.

An academic protest against the Government proposals is of very little use, though it is better than letting the matter go by default. It should be followed up by further action, and I shall be glad to hear from architects who are likely to be adversely affected by the Government's proposals with a view to a strong case being made out by the Society in any action it may decide to take.—Yours, etc.,

November 24th, 1919. C. McArthur Butler,
Secretary of The Society of Architects.

We give in another column an excellent letter from Mr. McArthur Butler on the subject of "Luxury Buildings," which we can very heartily endorse. But, besides the reasons advanced, there are others to which we have alluded, but which may be emphasised again. We believe the building of cinemas is specially in view, but it seems to us that a great deal of the discontent which has arisen is due to the fact that the lives of the poorer classes are often monotonous and uneventful. We are told that there is little for them to do when they are not working but to loaf about the streets and public houses. Theatres are either not available from a point of view of distance or prohibitive in their prices. Few care to spend their leisure in study or attending lectures, while reading only appeals to a limited number. The cinema theatres cater for those who wish for pleasant entertainment at a small cost, and if some performances given are objectionable, this is a matter for the public authorities, and does not carry with it any reflection on the cinema itself. If cinemas were not wanted it would not be a paying proposition to build them ; as it is they evidently cater for the masses rather than the classes, and so should meet with tolerance from even our official Pharisees. One prominent agitator who denounced them at a housing meeting was forced to admit that he had never gone to a cinema theatre in his life ! Comment is needless.—*The Architect.*

It would appear that Governments are easy to frighten, and that the present Government is rather badly scared about the housing business. Knowing that a false step might make them intensely unpopular, they seem not more anxious to do what is right than to avoid doing what would score against them at an election. They have not yielded to the demand for the cheapest sort of wooden houses ; for that was so obviously nothing more than a newspaper stunt ; but to the outcry against " luxury building " they have opposed a much less sturdy resistance. Mr. Mr. McArthur Butler, Secretary of The Society of Architects, suggests that architect should be prepared to support their organisations in amending or rejecting the anti-luxury building Bill. Clearly the chief reason for introducing it was the popular outcry against the demolition of dwellings to secure sites for cinemas —an action that seems so utterly selfish and callous that, naturally enough, the public indignation was instantly aroused to fever-heat. " Luxury building " must be stopped, was the cry, even if we have to get a special Act of Parliament to make it criminal! That would be all very well if only we could be quite sure the expression " luxury building " were not so vast and vague as to include almost everything except housing. But already in dread anticipation of the Bill's lethal effect on work of a more general character, architects' clients are countermanding their orders. Striking instances of this natural apprehension or misapprehension are mentioned by Mr. Butler, and could be indefinitely multiplied. His citations are particularly valuable for their indication that the expression " luxury building " may even be stretched to include cottages and flats, where these happen to be contingent accessories to buildings that come under the ban. Hence, one result of the Bill would be that it would prevent housing rather than promote it : which is absurd beyond the demonstrations of Euclid. But what is the remedy ? Any Act of Parliament, no matter how skilfully drafted, can be reduced to absurdity by adroit technical evasions, and in other ways. Quite so; but why multiply the opportunities for the exercise of such perverted ingenuity ? It would be much simpler, and far more effectual, to abandon all these war-begotten restrictions on building, which, left to its normal course, would soon settle down into a condition in which materials and labour, being entirely freed from Government control, would be distributed in just proportions amongst the various claimants for them. At the moment of release there might be some degree of spasmodic reaction ; but this would very speedily be followed by an equitable readjustment. The architectural and building organisations would see to that ; and we are strongly of opinion that the time has come when they should be given the chance.

WANTED, AN ARCHITECTURAL ADVISORY BOARD.

Mr. McArthur Butler states his belief that a joint council combining all the architectural interests would deal promptly and powerfully with any such crisis as that which threatens further affliction to the profession at the hands of the Ministry of Health. Let it be quite clearly understood that we are not accusing the Ministry of any intentional hostility towards the profession. Such a charge would be unjust and ungrateful; for it must be acknowledged that this Ministry has excelled all other Government Departments in courteous consideration for architectural interests. Whatsoever share it may have had in shaping this Bill was no doubt due to the most excellent intentions, coupled with or arising from a very inadequate survey of the situation. To whom should it turn for the enlightenment of its very pardonable ignorance of matters that for their successful handling demand the knowledge and experience of a committee of experts ? It might, of course, and probably did, seek, more or less casually, the advice of architects and builders; but casual advice has but little weight or authority. A Government Department could not, nowadays, excuse its policy on the ground that it was acting on the opinion of a few "eminent experts," selected haphazard, or after the manner of a "packed" jury, or foisted upon it by some aggressive sectional interest. There must be some sort of œcumenically constituted body, some Amphictyonic Council, to which it can go for authoritative and—to the highest point possible—disinterested advice on matters in which it needs faithful guidance. Such a council—which of course would have other functions besides that of leaning-post to weak-kneed Government Departments—should be a council of all the talents, should consist not only of members of rival architectural societies, but should include also representatives of all the other departments of our great industry, with a sufficient sprinkling of outsiders to keep watch over the interests of client or customer. Such a joint committee would not last very long. Not because it would necessarily have within itself the seeds of early dissolution; but because it would soon develop into, or be superseded by, something composed of more closely related units, assembled not fortuitously but systematically, being, for the most part, members of one body, which it would be regularly deputed to serve.

FUSION OR FISSION?

Would an œcumenical or Amphictyonic Council bring the R.I.B.A. and The Society of Architects into closer communion, impelling them to pull together rhythmically, if not altogether in the same boat? Certainly it might have that effect, but there is little fear that it would thereby postpone ultimate fusion of the two organisations. More probably it would accelerate the movement, because by bringing the rivals into closer touch it would give them greater mutual respect and a riper understanding of the issues between them. Sooner or later the rival organisations must unite. Nothing seems more certain; although, it is true, they have been for years coquetting with this idea, their coyness is not likely to endure indefinitely. So stupid a situation cannot survive a really serious assault, and signs are not wanting that in the general advance towards reconstruction such an assault will form an item in the plan of campaign. For, obviously, the two organisations have much to gain by fusion, and what they have already lost by fission will hardly bear examination; it is too utterly deplorable to contemplate calmly. It is not only that so much wicked material waste goes on year after year through duplication of effort, the effort doubled, and the effect divided, but infinitely more terrible, because incalculable, is the moral effect of divided counsels—an effect that, keenly felt by the Members of the rival organisations, reacts on the public and on Parliament. All this was realised by both organisations ten years ago, when there was an earnest though somewhat feeble attempt at coalescence.—*The Architects Journal.*

A FEDERATED COUNCIL OF ARCHITECTURAL BODIES.

In the course of a letter on "luxury building," by Mr. C. McArthur Butler, Secretary of The Society of Architects, which we print on another page, reference is made to the formation of a Federated Council of Architectural Bodies, capable of taking joint action quickly in any matter affecting architects. With such a Council in existence this question of luxury building, affecting, as it does, the whole architectural profession could, have been dealt with at once, and the effect of unity in the profession could, for the moment, be secured. We think the suggestion an admirable one, and believe that nothing but good could result from the formation of such a Council, which might well serve the profession on future occasions, and perhaps make easy the way to that unity which we all desire. We should welcome opinions on this suggestion from our readers.

THE BUILDING TRADE DANGER.

On another page we print letters from Mr. John W. Simpson, President of the Royal Institute of British Architects, and Mr. McArthur Butler, Secretary of The Society of Architects. We draw special attention to these letters, as some important matters affecting the building industry are dealt with by the writers.—*The Builder*.

HOUSE BUILDING DEFICIT.

(*To the Editor of The Globe.*)

SIR,—I am in entire agreement with Mr. C. McArthur Butler, the Secretary of the Society of Architects, in his letter to you.

If only the Government would drop their "panic legislation" with regard to property I am convinced that the property market would quickly find its proper level, and that private builders would build all the houses required if they could obtain an adequate return.

Houses are being erected by local authorities at a cost of £1,000 to £1,400 each. This means that unless a rental of £60 to £70 per annum is obtained, the ratepayers will be heavily taxed to meet the deficit.

This tax will, of course, fall upon the middle classes as usual, who are in a worse position than the working classes.—F. W. PARSONS, (*Member of the Kensington Borough Council and Housing Committee.*)

THE FOLLOWING LETTER HAS BEEN SENT TO MEMBERS OF PARLIAMENT:—

The Council of The Society of Architects, at a meeting, held on November 28th, unanimously resolved to make the strongest possible protest against the proposals of the Government to subsidise one form of private building enterprise and at the same time to stop what they may consider to be "luxury building," which is another form of private building enterprise.

The Council is of the opinion that the present high cost of building is more largely due to the restrictions necessarily placed by the Government on building operations by private enterprise during the War than to any other causes, and that the present critical situation in regard to the National Housing Scheme is the result of Government control and management, which latter is also chiefly responsible for the restriction of the output in labour and the supply of materials.

It is also maintained that the whole system of subsidies in connection with the building industry is wrong in principle and entirely unnecessary in practice, while the proposal to penalise one section of the building community at the expense of another is unwarranted by the present situation. The effect of the present subsidy will be, in the opinion of the Council, to increase the cost of building by further restricting the output of labour, while any stoppage of so-called "luxury building" will merely hamper still further the building industry and aggravate the existing artificial conditions caused by the Housing Act.

The Minister of Health and his advisors must be aware that building can be carried out at less cost by private enterprise than by Local Authorities, and that any form of official control is detrimental from the point of view of economy and speedy production.

The Council is strongly of the opinion that the best interests of the country in the present crisis of the National Housing Scheme will be served by allowing a free market both in labour and materials. In other words, by a return to pre-war conditions. Restrictions which were necessary in War time are out of place now, particularly when the present difficulties can be got over more quickly and effectively by other means. The remedy is to remove restrictions on labour and materials, give opportunities and encouragement for workmen to increase production, stop profiteering and unemployment doles, do away with Trusts and Combines in building materials, facilitate transport, repeal restrictive legislation, remove control, and restore to private individuals the right freely to carry on their lawful business.

The building industry will then revive, and there will be no lack of persons desirous of building houses or of workmen and materials to enable them to do so.

The Council invites every member of Parliament to take into serious consideration the points now laid before them, and requests them to use their utmost endeavours to stop any further restrictive legislation, and to urge upon the Government the extreme importance to the community of removing all restrictions which stand in the way of the building industry at once resuming its normal course.

THE FOLLOWING LETTER HAS BEEN ADDRESSED TO THE HOUSING COMMITTEES OF LOCAL AUTHORITIES IN THE UNITED KINGDOM :—

Some months ago The Society of Architects invited the attention of Local Authorities to the advantages to be derived from carrying out the recommendation of the Tudor Walters' Housing Committee of the Local Government Board, that every Housing Scheme submitted to the Local Government Board shall be prepared by a competent architect, whose duty shall include the preparation of the lay-out plan and the design and planning of all the houses. At the same time the Society gave reasons for urging the adoption of this procedure on professional, economic and patriotic grounds.

At that time the fees payable to architects so employed had not been agreed by the Government, nor was it certain whether such fees could be included in the Government grant, but in September last the Ministry of Health issued the General Housing Memorandum, No. 4, setting out the fees payable to architects in private practice for professional work, which may be charged in the accounts of State-Aided Housing Schemes and rank for financial assistance. It will be noted that the Scale has been framed on the assumption that properly qualified architects will be employed.

It has since become incumbent upon all Local Authorities under the Act, who have not yet submitted their Housing Schemes to the Ministry of Health, to do so without delay. The Society therefore again urges upon Local Authorities the advantages to be derived from placing their Housing Schemes in the hands of competent architects in independent practice, and points out that compliance with the recommendation of the Ministry of Health for the employment of qualified architects can be secured by retaining the services of members of the Society practising in various localities. Many of these architects have had special experience in Housing work, and some of them have evolved and used systems of economic construction which meet the requirements of the Ministry of Health.

The Society will be pleased at the request of any Local Authority to supply a list of Local members, and respectfully submits that where Local Authorities prefer to invite architects by public advertisement to apply for Housing Appointments, it should be made clear that the appointment will be made on the merits and the professional qualifications of the Candidates only, and that the fees payable to the architect appointed will be those agreed by the Ministry of Health for State-Aided Housing Schemes.

Publicity.

The following is a brief summary of some of the Press references to the Society during the past few weeks :—

Building By-Laws and Wooden Houses. The Secretary was interviewed by the *Evening News* on the subject of the abolition of restrictive by-laws and the building of wooden houses. A report of the interview appeared in that paper on September 24th.

Making England Ugly. A letter from the Society was published in the *Daily Mail* of September 24th, replying to a suggestion made by Mr. James A. Swan, F.R.I.B.A.—that the new cottages to be built should be relegated to the outskirts of villages on the score of ugliness—pointing out that the question resolved itself into one of appointing competent architects to design artistic cottages, and not of hiding ugly ones.

Rebuilding the Empire. Under the above heading a long letter from the Secretary appeared in the professional journals, advocating the transformation of the Architects' War Committee into a General Council of the architectural profession, with the object of preventing the overlapping of work by separate architectural bodies. This proposal has since been brought to the notice of the A.W.C., and further developments are likely.

Work for Ex-Service Men. A statement was issued by the Society dealing with the appeal of the Ministry of Labour to architects, asking them to waive the customary premium in the case of ex-Service men articled to them. It pointed out that the pupilage system was being superseded by the architectural schools and ateliers, and suggested that a Government grant might be made towards the foundation of a National School of Architecture, where ex-Service men could be received at reduced fees. At the same time it was made clear that an expensive and lengthy training is an essential preliminary to entering the architectural profession, and that there is no room for the unskilled. The article appeared in the *Morning Post* (Oct. 8th), *Times, Daily News, Star,* and *Liverpool Daily Courier* Oct. 9th) ; and in all the professional journals. It was adversely criticised further in the *Yorkshire Telegraph and Star* of Oct. 9th, to which paper the Secretary replied.

The Progress of Housing. A letter from the Society appeared in the *Morning Post* of Oct. 9th, arising out of a leading article criticising the slow progress of the National housing scheme, and urging the removal of restrictive building by-laws and the conversion of houses into flats. The letter pointed out that if some of the suggestions put before Government Departments by the Society directly and through the medium of the Press some long time ago had been adopted, the present situation would not have arisen.

The £500 House. In the *Daily News* of October 13th and 14th the Secretary replied to a statement made by Mr. Alan B. Dury, an architect, that wooden buildings cannot compare with permanent buildings of concrete or brick, both on a basis of comfort and cost, and suggested that a combination of the three materials might solve both problems. The letter extended an invitation to all interested in the subject to the Society's Meeting of the 16th, and resulted in numerous enquiries being received for details of Sir Charles Ruthen's experiment, and many applications for a copy of the Journal containing the paper.

Ministry of Fine Arts. The Secretary was interviewed by the *Daily Graphic*, and on October 9th the interview appeared in the form of a leading article reproducing the Society's suggestions for the formation of a Ministry of Fine Arts in this country on lines similar to those in operation in France, and also suggesting the foundation of a National School of Architecture. It further dealt with the necessity for protecting the public from the bogus architect.

State Housing Bonds. A letter from the Secretary appeared in the *Daily Telegraph* of October 16th, dealing with Mr. Westacott's proposal for the solution of the housing problem by means of State Housing Bonds, and pointing out serious defects in the scheme, amongst them the fact that the architect had no part in it. Mr. Westacott has since decided to amend his proposals when reprinting his pamphlet to meet the views expressed by the Secretary.

Rapid House Construction. Preliminary notices of Sir Charles Ruthen's paper appeared in the *Times* (October 7th), *Westminster Gazette, Morning Post* and *Daily Telegraph* (October 8th). The Society has not a full list of cuttings from newspapers in which a reference to Sir Charles' paper appeared, but the following are some of them : *Times, Daily News, Daily Chronicle, Daily Mirror Evening News, Westminster Gazette, Morning Post, Star, Pall Mall Gazette, Daily Telegraph, Daily Sketch, Field, Yorkshire Post, Daily Mail, Glasgow Herald, Scotsman, Yorkshire Observer, Western Daily Press, Western Times, Yorkshire Herald, Weekly Despatch, Reynolds Weekly, Northern Daily Telegraph, Glasgow Bulletin, Newcastle Chronicle, Western Mercury, East Anglian Daily Times, Belfast News Letter, Western Evening Herald, Yorkshire Evening News,* and all the professional journals, of the 17th, 18th and 19th of October. The paper was subsequently several times referred to in the daily papers, particularly the *Daily Mail* and *Evening News.*

Ministry of Fine Arts. The *Medical Press* of the 22nd October devoted an editorial paragraph to praising the Society for its efforts towards the establishment of a Ministry of Fine Arts.

Fires in Wooden Houses. A statement made in the *Daily Mail* that wooden houses were particularly liable to prairie fires, was refuted in a letter from the Society published in that paper on October 23rd.

Inartistic Churches. A comment by the Secretary on an address delivered by the Rev. Percy Dearmer, and dealing with the subject of Inartistic Churches, appeared in the *Daily Chronicle* dated October 31st, recalling the fact that Mr. Dearmer had expressed similar views in a paper read before the Society some years ago.

British Commercial Gas Association. An address given by the President of the Society before this body was reported in the *Morning Post, Times, Pall Mall Gazeette, Daily Chronicle, Daily Sketch, Yorkshire Post, Stratford-on-Avon Herald, Eastern Daily Press, Yorkshire Evening News, Scarborough Evening News,* and some of the professional journals dated October 30th.

Victory Scholarship. Attention to this scheme is being drawn through the medium of the professional journals, and has so far appeared in the *Building News.*

Institution of Sanitary Engineers. The Society was officially represented at this Dinner by its President and Secretary, and a reference to the President's remarks appeared in the professional journals.

The Society of Architects' Lodge of Freemasons.

At the Installation Meeting of the Lodge, held on November 12th, at the Holborn Restaurant, Mr. H. W. Martin Kaye was admitted to Membership. Major T. Stewart Inglis, D.S.O., who is serving the office of Master for the second year, invested his officers. The auditors' report was received and adopted, and proposals were made on behalf of four joining Members and four candidates for initiation.

The Society of Architects War Memorial.

VICTORY SCHOLARSHIP.

After careful consideration of the suggestions made by Members of the Society for a suitable War Memorial, the Council has decided in favour of a proposal made by several Members to found a Scholarship in Architectural Design to be designated "The Victory Scholarship" It is to be of the value of £50, and is to be open for competition as often as the fund to be raised and invested for that purpose will permit, (which it is hoped will be annually,) to any persons not exceeding 30 years of age. The Competition is to be conducted on similar lines to the Prix de Rome, and the Scholarship is to carry with it the Gold Medal of the Society.

The conditions and programme of the Competition are being drawn up by the Beaux Arts Committee, whose jury will act as Assessors.

It is thought that Members will welcome an opportunity of contributing to a fund which will perpetuate the part which the Members of the Society took in securing Victory, in a manner acceptable to the profession and advantageous to the cause of architectural education.

It is not proposed to publish the amounts individually subscribed by Members, but only the total of the fund, and while no limit is placed upon the donation which any Member may desire to contribute, it is pointed out that if each Member, when paying his Annual Subscription, were to add one guinea to it, a sum sufficient to provide by investment an income of £50 per annum would be at once available.

Donations, whatever their value, will be equally welcomed, and should be sent to the Secretary of the Society, at 28, Bedford Square, W.C. If a Member desires to spread his donation over a given period, it is hoped he will do so.

REGULATIONS FOR COMPETITORS.

1. The Jury of the Beaux Art Committee will be the Assessors, and their decision will be final.
2. The Competition is open to all British subjects, male and female, under the age of 30, and will consist of designs in architectural composition.
3. The Competition is divided into two parts as follows :—
   (*a*) A twelve hour sketch, competed for "en loge" in London under supervision, at a place designated by the Jury. Each sketch will be officially stamped by a representative of the Beaux Arts Jury. The designs will be exhibited and assessed by the Jury, who will designate a maximum of ten competitors eligible to enter for the Second Competition.
   (*b*) A second and final limited competition, lasting one month, based on a second twelve hour preliminary sketch to be competed for "en loge" by the selected competitors, the subject being set by the Beaux Arts Jury, each sketch to be officially stamped by a representative of the Jury.

NOTE. The term "en loge" signifies that Competitors will be isolated and must produce their sketches from the given programme without reference to books or documents and without consultation. Any Competitor bringing with him books or documents that might be helpful to him will be disqualified.

In the second competition the Competitors will make and preserve a copy of their sketch which will form the basis on which the final design will be carried out. Such Competitors, after having produced their 12 hour sketch, may receive the advice and criticism of their masters and fellow students, but any serious deviation from their original twelve hour composition or any insufficient rendering will disqualify the Competitor.

The finished designs will be exhibited and assessed by the Beaux Arts Jury, who will award the prize to the best design, subject to the standard being sufficiently high to merit this award. If, in the opinion of the Jury, none of the designs reach the required standard of excellence, the award may be withheld entirely for that year, and, in this case, the money may, at the discretion of the Council of the Society, be added to the General Fund with the idea of subsequently increasing the value of the prize.

If in the opinion of the Jury two designs are of equal merit, the prize will be divided, and in such an event the Medal will be duplicated.

At the end of the second and final competition each Competitor's original stamped sketch will be pinned on to his finished design, and if, in the opinion of the Jury. the main conception of the sketch has not been adhered to, the Competitor will be disqualified.

The Programmes will be handed on the day appointed for the Sketch Competitions to the Candidates in sealed envelopes, and the subject will not be disclosed before that date.

Although it is considered essential that both the twelve hour sketches should be executed " en loge " in London, the final design may be developed at any place convenient to each selected Competitor.

The prize will be Fifty Pounds (£50), and the winner will be at liberty to spend the money in any way he may choose, provided he satisfies the Beaux Arts Jury that it is devoted to the furthering of his education.

The competition will be held yearly, about the middle of March, and entries must be made not later than *January* 31*st*, 1920. The first " en loge " competition will be held about the middle of March ; the second " en loge " and final competition a month later.

Candidates will be notified of the dates, times and places of sitting.

The Council of The Society of Architects reserves the right to vary these conditions from time to time.

The Society of Architects and Irish Housing Schemes.

An Order of the Housing Department of the Local Government Board for Ireland was recently issued with respect to the employment of architects by Local Authorities for the purpose of Housing Schemes under the Act, which provides for the formation of a Panel of Architects limited to Members of the Royal Institute of British Architects or the Royal Institute of Architects, Ireland.

As such an Order, if not extended, would have debarred from this Panel those members of the architectural profession who are not members of either one of the Institutions named, The Society of Architects took the matter up with the Local Government Board for Ireland, which has now agreed that all Members of the Society practising in Ireland may make application to be included in the Panel. The names of several Members of the Society who would have been disqualified under the Order as it stands have already been added to the Panel.

The Society holds the view that public architectural appointments should be open to all architects possessing the required professional qualifications, seeing that no existing architectural body has the monopoly of such members of the profession on its Registers.

Notes from the Minutes.

At a Council Meeting held on November 13th, it was reported that so far the replies to the Council's circular relating to the proposed grading of the Membership showed a large majority in favour of the scheme in general, with a few suggestions for amendments in detail, At the Members' Meeting on the same evening a resolution was passed agreeing to the proposal as set out in the circular, and leaving the naming of the Classes and the settlement of the descriptive initials to the discretion of the Council.

Information was received that the alterations to the Society's premises for the accomodation of the Atelier were in progress and that it was anticipated that the new Atelier would be ready early in the new year.

It was announced that about £100 had been subscribed to the Victory Scholarship Fund, and that donations were still coming in.

Correspondence with the L.G.B. of Ireland relating to the formation of a Panel of Architects confined to Members of two Institutions showed that as a result of representations made by the Society, applications would also be received from Members of the Society practising in Ireland who are not Members of the R.I.B.A. or the R.I.A., Ireland.

The draft of a further letter to Local Authorities urging that Housing Schemes should be placed in the hands of independent practising architects was approved.

A communication was received from the Nottingham and Derby Society stating that at a meeting of that body held on November 11th, a resolution in favour of the Statutory Registration of Architects was unanimously passed, calling upon the R.I.B.A., The Society of Architects, and unattached architects, to combine in producing an agreed Registration Bill.

The Council co-opted Mr. A. J. Taylor, of Bath, and Mr. L. Sylvester Sullivan, of London, to fill the vacancies in the ordinary membership of the Council caused by the election of Sir C. T. Ruthen and Mr. A. Burnett Brown as Vice-Presidents of the Society.

On the recommendation of the Membership Committee twenty-four applications for Membership were approved, and two candidates were added to the Register of Graduates. The resignations of three Members were accepted, and one Member was reinstated.

The Standing Committees were appointed, and the new Members of the Council allocated to them.

The Council agreed to the Architects and Surveyors Assistants Professional Union being represented on the Assistants Welfare Council, and also undertook to support the Union in a recommendation to the Profiteering Committee of the House of Commons that drawing materials and instruments should be included in the list of articles within the jurisdiction of the Profiteering Act.

It was agreed to send two official delegates to a meeting of the Industrial Council for the Building Industry to be held at York on November 25th, for the purpose of supporting a proposal that the Society should be represented on that body.

The report of the Examination Committee was received, showing that six candidates had sat for the special war examination recently held at Cologne, under the auspices of the Army Education Authorities. Four candidates were awarded a pass, and the remainder relegated to their studies.

Payment for Architect's Services.

OPINIONS FROM NEW YORK.

At a meeting of the New York Chapter of the A.I.A., a discussion of the percentage remuneration brought out the following opinions :

MR. R. D. KOHN : There are several methods of payment that may be considered. (1) Whereby costs in the office are charged to the client plus a percentage of that cost for overhead and a fixed honorarium for the architect. (2) The same scheme, only substituting a per centage of the cost of the building as the honorarium for the architect. (3) The client to pay the actual drafting costs plus a fixed sum which includes both the honorarium for the architect and his overhead. In this case, the architect gambles as to his overhead. (4) The client pays the office costs plus a certain percentage of that office cost to cover the overhead, and then an amount equal to these two taken together as the architect's honorarium.

In the course of the argument, attention was called to the fact that while the percentage scheme puts all architects apparently on the same basis as to the value of their services, against this the percentage scheme has helped to put architects on a fair basis of compensation and enabled the young men to get proper pay. To do away with the percentage scheme now would be to open the door, first, to competition as to price; second, to make it difficult to prove in court as to the value of service; and third, would make it difficult to get a proper rate on public work, particularly in competitions where it has been hard enough to establish a schedule rate. The only advantages that are evident in the cost plus scheme is that the architect could not lose anything by this method, and, furthermore, that a client actually is responsible for the costs in the office, where he himself is the cause of their increase. The point was also made that the owner who would suspect the architect, under a percentage scheme, of wishing to increase the cost of a building in order to increase his fee, would unquestionably suspect the architect's accounting, and would be quite likely to wonder whether he was running his office economically.

MR. L. C. MULLGARDT, SAN FRANCISCO : As individual ability and nature of service varies, therefore the rate of compensation should not be uniform nor should the Institute attempt arbitrarily to provide a minimum rate of compensation. The Institute usurps individual freedom in attempting to prescribe a uniform charge for results, the quality of which it cannot insure to the client. Every practitioner should be obliged to determine the value of his own service.

Many low-grade practitioners have joined the Institute to insure a higher rate for service than they can otherwise obtain. They impose upon the public, using the prestige gained through Institute Membership. The Institute should concern itself with quality of Membership, not quantity.

The Schedule of Charges has never barred competition as to price among architects. Every architect should charge only what his services are actually worth. The Institute should endeavour to suggest the value of any practitioner's service. Such values necessarily vary according to quality and character, and should therefore be determined between architect and client.

If the Institute continues to make recommendations concerning compensation, then a proportionate increase should be assigned for preliminary service ; this demands ability to create an appropriate design, and service necessarily embraces that which is most valuable to the client, and should be charged for accordingly, whether in competition or otherwise. Preliminary service in competition is of equal importance to preliminary service without competition. It represents the same degree of service and importance and should therefore not be discriminated against.—*The Journal of the American Institute of Architects.*

The Society of Architects' Students Competitions.

Regulations and Conditions, 1920.

TRAVELLING STUDENTSHIP.

Candidates for the Travelling Studentship must be Graduates or Registered Students of the Society, who have paid their subscriptions for the current year, and who are not more than 28 years of age. Ex-service students may deduct the time spent in H.M. Forces between 1914-19, from their present age, if necessary.

The Assessors will be Messrs. Percy B. Tubbs, F.R.I.B.A., M.S.A.; Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., M.S.A.; and Colonel F. S. Leslie, R.E. (ret.), HON. A.R.I.B.A., M.S.A.

The competition drawings must be delivered, carriage paid, at the Offices of the Society, 28, Bedford Square, London, W.C.1., not later than 6 p.m. on the first day of May, 1920, without name, motto, or other mark of identification, and must have attached to one of the drawings a plain sealed envelope containing the competitor's name and address, and a signed declaration to be made on a form to be obtained from the Society that the drawings are the Candidate's unaided work.

The plans will be numbered as received, and a corresponding number will be placed upon the competitor's sealed envelope, which will not be opened until after the award has been made by the Assessors and confirmed by the Council. The Society will not be responsible for any loss or damage that may occur to any drawing or document submitted in connection with this competition, nor for any delay in delivery.

The Studentship is of the value of £25, and carries with it the Silver Medal of the Society. The holder will be required to undertake between June 1st and October 1st a sketching tour of not less than two weeks' duration.

The successful Candidate must within fourteen days after receiving notification of the award, notify the Secretary of the date of the commencement of the tour and its proposed locality, and will then receive the sum of £15.

A diary of the tour must be submitted with the measured drawings, sketches, and notes, all of which must reach the Secretary before October 1st.

Subject to the Council being satisfied with the work executed during the tour, a further payment of £10 will be made, and the Silver Medal presented to the Candidate at the first Ordinary Meeting of the Session, or some other date to be fixed by the Council.

The Council reserve the right of exhibiting or reproducing all or any of the drawings, and their decision on any matter arising is to be final. The Studentship may only be held once by the same person. A Candidate who does not adhere to the conditions and instructions in every particular will be disqualified.

SUBJECT FOR 1920. A DESIGN FOR A MIDDLE-CLASS HOUSE.

SITE. The site has a 50 foot frontage to a main road. The road is sewered, and gas and water mains, and electric cables are laid therein.

ACCOMMODATION. The house may be detached, or form one of a semi-detached pair, and must be on not more than two floors, and contain four bedrooms, bath, and usual offices. The remaining accommodation and arrangement are left to the competitors.

COST. Competitors must supply an estimate of the present day cost on a cubic foot basis, and may assume that there are no restrictive building by-laws.

DRAWINGS REQUIRED. Block plan to a scale of 16 feet to the inch, showing the drainage, boundary walls or fences and their nature, the entrances and compass point. A complete set of drawings to ⅛-inch scale, such as would be required by a contractor to carry out the work, comprising plans of each floor, showing any internal fittings, and the drainage system, elevations of each front, two cross and one longitudinal sections, and one part of sheet of details including a ½ inch detail of the main front. Perspective sketch optional.

The drawings must be executed on white paper, imperial size, and mounted on stainers.

The Council reserve the right of withholding or varying the award for any reason deemed by them to be sufficient.

Intending competitors should notify the Secretary of their intention to compete. Any amendments to the conditions or replies to questions raised by competitors will be published in the JOURNAL.

THE ARCHITECTURAL SCHOLARSHIP, 1920.

The Scholarship is awarded for Measured Drawings, and the Competition is confined to Students of the Society who are under 23 years of age on the latest day fixed for the delivery of the drawings, viz., September 30th. Ex-service Students may deduct the time spent in H.M. Forces between 1914-19 from their present age, if necessary.

Candidates are required to submit at least three and not more than four sheets of measured drawings and details of some building of historic interest.

The drawings must be prepared between January and September, 1920, and are to be executed on imperial size paper, and delivered carriage paid at the Society's Offices, 28, Bedford Square, London, W.C.1, on or before September 30th, 1920, together with the original sketches and notes.

The drawings must be without name, motto, or other mark of identification, and must have attached thereto a plain sealed envelope containing the Competitor's name and address and a signed declaration, on a form to be obtained from the Secretary that the drawings, etc., are the Candidate's unaided work.

They need not be mounted, but they must be delivered flat and not rolled. They will be numbered as received, and a corresponding number placed on the envelope, which will not be opened until after the award has been made by the Assessors and confirmed by the Council.

The Scholarship is of the value of £10, and will be disbursed by the Council on behalf of the holder.

The award will be made by the Council subject to their approval of the manner in which the Candidate proposes to utilise the Scholarship, or alternatively, to the Candidate agreeing to such scheme as the Council may decide upon.

Should the scheme not call for the payment of so much as Ten Pounds (£10), the holder may receive the value of the balance in books or instruments.

The successful Candidate may be required, before the award is confirmed, to produce to the Council evidence as to age.

The Council will not be responsible for any loss or damage that may occur to any drawing or document submitted in connection with this Competition, nor for any delay in delivery.

The Council reserve the right to exhibit or reproduce the drawings, and their decision on any matter arising, is to be final.

The Scholarship may only be held once by the same person.

A Candidate who does not adhere to the conditions in every particular, will be disqualified.

The Educational Policy of the A.A.

In view of The Society of Architects intimation to the Ministry of Labour that the pupilage system of architectural education is being superseded by the Architectural School, it is interesting to note that this view is confirmed by the President of the A.A., who stated that in London the old pupilage system is passing away. It is still more interesting and complimentary to the Society to find that the Beaux Arts system of inculcating the principles of architectural design first introduced into this country by the Society through the Beaux Arts Committee and maintained in the face of much hostile criticism, was afterwards put in practice by the A.A., and has now been developed to meet the needs of the London Schools.

The A.A. Atelier is under the direction of Mr. H. M. Robertson, who is Architecte Diplomé par le Gouvernment Français, and a Registered Architect of the State of New York.

A very fitting appointment seeing that admission to the A.A. Atelier is to be confined to students who have attained a certain standard of efficiency before they can be registered as members of the Atelier.

Here we have the principle of the Statutory Education and Registration of Architects admitted and carried into practice by the Architectural Association, surely stamping it as a body which recognises the truth of its President's doctrine, "that for architects the time has come for a progressive policy."

Reviews.

Building Construction. A Text-book on the Principles and Details of Modern Construction for the use of Students and Practical Men, by Charles F. Mitchell and George A. Mitchell, A.R.I.B.A. Part 2. Advanced course, 9th Edition, revised and enlarged, with about 800 illustrations. Thick 8vo., pp. 977, London ; B. T. Batsford, Ltd., 1919. Price 10s. 6d. nett.

This work is so well known to architects that it only needs the announcement of a new edition for them to order a supply for their pupils. They will be glad to learn that to meet the rapid strides in the application of steel to all details of construction, the chapters dealing with Graphic Statics, Riveting, Pillars and Girders have been re-written. Those dealing with Foundations and Brickwork have also been re-arranged and enlarged. This is without doubt the best students' handbook of Building Construction now on the market, and anyone who thoroughly absorbs it may consider himself a master of his subject. An appendix gives the Syllabus of the Board of Education examinations and sample examination papers in each division of the subject. So far as book work can go a student has in this work all he wants, but he must, of course, supplement his theoretical knowledge by a careful study of actual construction. An intelligent, practical man is a great asset to the nation.

How to Estimate. Being the Analysis of Builders' Prices by J. T. Rea, 4th Edition, Demy 8vo., 544 pp., with over 400 illustrations. B. T. Batsford, Ltd. Price 10s. 6d. nett.

This is a reprint of the well-known and appreciated handbook with a few minor corrections. The author decided to defer a thorough revision of the prices until the building trade has emerged from its present unsettled condition. Although based upon pre-war prices, the utility of the book is not materially lessened thereby, as the main purpose is to set forth the principles upon which estimating is based, rather than to set forth standard rates, which vary according to circumstances even in normal times. No builders' estimating clerk can afford to be without this book at his elbow for constant reference, and a careful study of its contents will well repay anyone who has to do with building operations. The first edition was good, and each succeeding one was better, so that we now have a substantial volume containing a mass of useful information upon every branch, arranged in the usual order of trades.

Mainly about Members.

According to a statement in the *Times*, MR. HARVEY CORBETT, of New York, is to be the architect of the building to be erected on the Strand Island site, which has been acquired by the Bush Company. MR. CORBETT is an American architect who, some time ago, while on a visit to this country, became associated with The Society of Architects, of which he is a temporary Member.

The Harrow Council Housing Scheme for the erection of 28 bungalows was approved by the Board within a few hours of its being deposited, thus creating a record in respect of schemes submitted under the Housing and Town Planning Acts.

The proposal provides for the rapid erection of houses of a permanent character with practically the same accommodation as houses of the standard type (the rooms being slightly smaller) at a cost of something like £200 to £250 per house less than the tenders now being received in other districts for the standard type of houses.

The Surveyor paid a tribute of praise to MR. GEO. E. CLARE, architect, of Harrow, who collaborated with him in the preparation of the plans of the bungalows, which received much commendation at the Housing Board.

Messrs. Geo. Coney, Ltd., of Kells, are about to erect a very extensive garage, for which the plans have been prepared by MR. H. J. LYONS, of Dublin. The frontage is over 200 feet, and the depth of the new building will be 129 feet.

The President, MR. E. J. SADGROVE, and the Secretary, Mr. C. MCARTHUR BUTLER, represented the Society at the Annual Dinner of the Institution of Sanitary Engineers, held at the Holborn Restaurant on November 12th. MR. SADGROVE was one of the speakers in response to a toast of " Kindred Institutions."

MR. W. J. NEWTON, the borough engineer, of Accrington, has prepared and presented to the Baxenden War Memorial Committee, a design for an unpolished grey granite memorial, standing 17 feet 6 inches in height, to be erected in front of St. John's Church, Manchester Road.

MR. BERNARD J. MENDHAM, of Barmouth, has been appointed by the Board of Agriculture to be chief architect for Wales and Staffordshire

MR. FRANK H. HEAVEN, of Aberkenfig, Glam., has been appointed as first Housing and Town-Planning Assistant under the Pontypridd Urban District Council, who propose erecting some 1,600 to 2,000 houses in their area. Mr. HEAVEN is at present in communication with the Advisory Committee of the Local Government Board respecting a trabeated style of construction in reinforced concrete members, which would eliminate the use of timber throughout for constructive purposes.

MR. A. HAYNES JOHNSON, of Winchester, has been appointed architect of the Romsey Housing Scheme.

MR. WM. BROADBENT, of Leeds, has been commissioned to design the new Public Baths for the Horsforth Urban District Council, and has been selected to act as joint architect for the layout of the same Council's Housing Scheme, together with the erection of 200 houses. He has also received the appointment for the designing of 50 houses for the Corporation of Leeds.

MR. W. B. STONEBRIDGE, of Bedford, Diocesan Surveyor, has been appointed architect to the Ampthill Rural District Council Housing Scheme, comprising 106 houses.

The designs for the War Memorial Chapels at All Saint's, Hastings, St. Mary Magdalene's Church, St. Leonards-on-Sea, and the War Memorial at Arksdean Church, Essex, will be carried out in accordance with the plans, etc., of the architect, MR. TUDOR, St. Leonards-on-Sea.

For the Information of Members.

The Library. Gifts of books on Architecture and allied subjects, and Donations to the Library Fund are invited. Books from the technical circulating library are sent through the post, or may be obtained on loan personally by Members on application. The Rules relating to the use of the Library are published in the Year Book, and a copy of the Catalogue may be obtained (free of charge) from the Secretary.

NOTE. The Library is closed for the time being, pending the completion of alterations and decorations to the premises, Notice of re-opening will be given in these columns in due course.

Book Reviews. The Secretary will be glad to receive the names of Members who will undertake to notice books sent for review. They are asked to mention the subject with which they would prefer to deal.

Professional Appointments. Members seeking appointments or requiring Assistants should notify the Secretary of their requirements so that they may be entered on the Register. There is no charge.

Subscriptions. Annual subscriptions are due and payable in advance on November 1st of each year, and Members are invited to make use of the Bankers' Order Form method of payment where possible. A form for this purpose may be obtained from the Secretary.

The Examinations. The qualifying entrance examination for Membership is held in April and October. A copy of the syllabus may be obtained from the Secretary. The Graduateship examination has been discontinued in view of the new proposal for grading the Membership.

Awards and Scholarships. Particulars of the Victory Scholarship, value £50, the Travelling Studentship, value £25, the Architectural Scholarship, value £10, and other awards will be announced in the JOURNAL from time to time.

Professional Advice and Defence. The rules and regulations for legal assistance to, and professional defence of Members of the Society are set out in the Year Book, together with the Society's Code of Professional Ethics.

Publicity. The Society has a special department for securing publicity in the Press and elsewhere relating to matters in which the Society and its Members are concerned. Members can greatly assist the work of the Society by keeping the Secretary supplied with cuttings from local newspapers or other information of interest to architects in general and Members of the Society in particular.

Beaux Arts Atelier. As soon as the extensions to the Society's premises are completed the Members will be informed of the advantages to be derived from entering the Atelier and the qualifications necessary for doing so.

Changes of Address. Members are requested to notify the Secretary at once of any temporary or permanent changes in their address so that the Registers may be kept up-to-date and the difficulties avoided which arise when communications to Members are returned through the post.

Masonic Lodge. The Lodge meets on the second Wednesday in November, January, March and May, at the Holborn Restaurant. The present Master is Major T. Stewart Inglis, D.S.O., R.F.A., and the Secretary is Mr. C. McArthur Butler Visiting "members" from other Lodges are always welcome.

Communications. All communications should be addressed to

**THE SECRETARY OF THE SOCIETY OF ARCHITECTS 28, BEDFORD SQUARE,
LONDON, W.C.1.**

Telegrams "Crypt," Westcent, London Telephone "Museum" 942.

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Toward's Professional Solidarity.

Was it not Mr. Gladstone who said that in matters of high policy there were always three courses open to statesmanship? Three courses suggest themselves with respect to the rival organisations of architects: (1) The stronger could endeavour to crush the weaker; (2) the two could form allied societies, each autonomous, but this would perpetuate the existing conditions of overlapping effort, divided authority, and weakened influence; (3) the two bodies could coalesce, in which case the profession would "go solid" for Registration, and thus annihilate the chief objection to Registration—that the demand for it lacked unanimity. Now, the third course, while in our judgment infinitely the best, is possibly the most difficult, if not entirely the most drastic, of the three. Members of the parent organisation might continue to object, as they have done before, to the logical consequence of coalescence—the temporary or special exemption from the regular examinations for Associateships and Fellowships. This is a rather delicate subject to discuss, and we do not propose to go into it just now. All that need be said for the moment is that, sooner or later, it must be faced. There is, one may imagine, a far better prospect of success than there was when the issue was tried ten years ago, if only because the war has created among us a keener sense of brotherhood and a much greater familiarity with self-sacrifice. For it cannot be denied that a certain degree of a sort of self-sacrifice will be required to enable a man to swallow his very natural resentment at seeing others obtain so lightly the degree to which he attained with much travail and no little expense. But, after all, that is a personal, and need be only a transient, emotion, and should be suppressed for the general good of the profession. Merely personal considerations will, we feel sure, give way before the larger issues, when the latter are visualised more vividly. On a just balance of loss and gain, Associates and Fellows would have every reason to rejoice if the Institute's New Charter were made to incorporate the entire profession. That would be an achievement well worth a little personal self-abnegation for the sake of solidarity.—*The Architect's Journal.*

Proceedings of the Society.

An Ordinary Meeting of The Society of Architects was held at 28, Bedford Square, London, W.C.1, on Thursday, December 18th, 1919, at 8 p.m.

The President (Mr. Edwin J. Sadgrove) having taken the Chair, the Minutes of the previous meeting, as published in the Journal, were taken as read, and were confirmed and signed.

The Secretary announced forty-three nominations for Membership, the transfer to the retired list of J. S. McDonald, Edinburgh, G. T. Misselbrook, Gravesend, and T. Winder, Sheffield, and the resignation of N. C. Spratt, Surbiton (Member).

Sympathetic reference was made to the loss sustained by the Society, through death, of James Thompson, of Alderley Edge (Member).

The ballot was then taken for the election of the following candidates for Membership, and was declared to be unanimously in their favour :—

Braine, Harry Allix, Amberley, near Stroud, Glos. Brine, Richard Harold, 81, Park Road, Sutton Court, W.4. Chipling, Sydney Lawson, 588, London Road, Lowestoft. Cooke, Frederick James, 17, Market Place, Banbury. Culley, Norman, A.R.I.B.A., 13, John William Street, Huddersfield. Dakin, Ernest Alfred, Waterloo House, 11, Market Place, Loughborough. Dickinson, Ivan Robert Milburn, 47a, Wordsworth Street, Penrith, Cumberland. Dunand, Claude, 55, Morely Road, E. Twickenham. Geen, Arthur Cecil, 2, Wells Street, Jermyn Street, S.W.1. Hollins, George, A.R.I.B.A., 4a, Market Place, Newcastle, Staffs. Honour, Stanley, Chief Engineer's Office, Euston Station, N.W.1. Lister, Bertram Thomas, 36, Dale Street, Liverpool. Miller, George James Birslup, 17, Rowcroft, Stroud. Minns, Stanley Eldon, 14, Wharncliffe Chambers, Bank Street, Sheffield. Newton, Louis John, Windmill Cottage, Doncaster Road, Crofton, near Wakefield. Pinder, Frederick Napier, Ash Grove, Deepdale Road, Preston, Lancs. Rees, Frederick William, 44, Park Lane, Croydon. Roberts, Harry Oswald, 125, Sinclair Road, Kensington, W. Speight, Gilbert George, Lamorna, Sherbourne Crescent, Preston, Lancs. Taylor, Mrs. Florence Mary, 20, Loftus Street, Sydney, N.S.W. Tomlinson, Lawrence Digby, A.R.I.B.A., Harley House, Harley Street, Leigh-on-Sea. Wagstaff, Clarence Barnard, 57, Salter Gate, Chesterfield. Wagstaff, William Henky, 4, Priory Place, Doncaster. Watkins, Herbert Richard Washington, 8, St. Stephen's Road, Ealing, W.13.

It was announced that the Right Hon. Viscount Astor, Parliamentary Secretary to the Ministry of Health, and Lady Astor, M.P., had accepted the Society's invitation to a luncheon at the Trocadero Restaurant on January 8th.

Professor Adams then read a paper on " The Need for More Care in Warehouse Design," and showed a number of lantern slides bearing on the subject. The paper was followed by a discussion, in which the following took part : The President, Mr. E. J. Sadgrove, Mr. W. H. Leverton, Sir C. T. Ruthen, Mr. N. D. Sheffield, Mr. Moss, and others. Professor Adams replied to the points raised, and was accorded a hearty vote of thanks. The proceedings then terminated.

Annual General Meeting.

The thirty-sixth Annual General Meeting of The Society of Architects will be held at 28, Bedford Square, W.C.1, on *Thursday, January 15th*, 1920, *at* 8 *p.m.*, to receive the Council's Annual Report and Statement of Accounts, and to transact other business. Mr. Harvey Piper, Hon. Member, will afterwards give a lantern lecture on " Amiens Cathedral Before and After the War." Some of the slides have not hitherto been exhibited. Members may bring friends, and ladies are specially invited. Light refreshments will be provided.

The Need for More Care in Warehouse Design.

By Henry Adams (Member).
M.Inst.C.E., M.I.Mech.E., F.S.I., F.R.San.I., Etc.

My long association with this Society has impressed me with the fact that it is always in the forefront on any question that affects the reputation and progress of architects as a body, and I venture to think that the subject of this Paper will appeal to the members as opportune, especially now that new methods of construction are coming so largely into use. In the old days, fifty years ago and more, warehouses were constructed without any special attention to economy of material, walls were thick and window openings were small, so that there was ample stability; the floors were substantial and the fir pillars or cast iron stanchions supporting them were placed at not more than from 10ft to 12ft. 6ins. centres, so that the bending moments were small; and the height from one floor to the underside of the next one varied usually from 7ft. 6ins. to 8ft. 6ins., so that except in the case of a paper or ironmongery warehouse, the floor could hardly be overloaded. Then the beams being of wood indicated any excessive strain long before they were loaded to a dangerous extent. The chief risk was failure from decay of the ends of the floor beams or roof principals built into the walls, and, of course, from fire.

I have found also in warehouses some cases of overloading timber beams on the supports, the area of support being insufficient to reduce the intensity of the load to the safe limit. Experiments on timber are incomplete in this respect, and the loads borne by the end grain as pillars give no clue to the safe load across the grain upon the beams and sills. My experience shows that the maximum for safety is 2 cwt. per square inch on fir, and that half this is enough in ordinary cases. The safe load on the end grain of a post may be 4 cwt. per square inch if not more than 10 diameters long, and half that for a post 20 diameters long. The ultimate compression on the end grain of a cube of Baltic fir is 2,500 to 5,500 lbs., or say 22½ to 49 cwt. per square inch.

About the year 1860, rolled iron joists were introduced by Messrs. Homan and Phillips, and we had then an internal framework which, although not combustible, was always a source of great danger in case of fire, from the softening and collapse of the joists pulling in the walls. The connection of the stanchions or pillars from floor to floor was often inadequate, and instead of forming a tie to the outer walls the ironwork was chiefly kept in place by them. Then again, the architects not realising the increased necessity for learning the principles of structural stability, sometimes cut about the ironwork to a dangerous extent. The most notable case in point was perhaps the underground dining hall of Kings College, London, where the top flange of a cast iron girder was cut through to allow the placing of cross girders, which resulted in a sudden collapse. A very serious case of this kind came under my notice a few years ago in the North of England. Part of a warehouse of several floors was wrecked after working hours one evening and the Secretary and a clerk killed. I was called in to investigate the matter and found the collapse was due to the top flanges of some main girders having beeen cut through where the cross girders took their bearing, that is to say the girders were weakened just where they required to be strongest, and the failure was called an " accident." The warehouse had been erected thirty years, but had been on the point of failure all the time, and had the collapse taken place only the next afternoon, the whole Board of Directors would have been killed as well as many of the workmen. The admirable section-handbooks issued by the leading steel manufacturers are apt to give architects a false idea of security in using the tables of safe loads. There is first the difficulty of determining the loads that will come upon the girders, and then, where the distribution is irregular, determining the maximum bending moments and converting those into equivalent safe loads. Many architects fail to realise the existence of negative bending moments over the intermediate supports, which often exceed the positive bending moments when the girders are continuous, and must be fully provided for. The collapse of a race stand was accounted for by the negative bending moments which had been neglected. In one of the London markets, I found the actual stress in the compression members of some wrought iron lattice girders was over 7 tons per square inch, where it should not have exceeded 3 tons, so that the factor of safety was a vanishing quantity. The Managing Director of an important Company came to me in great trouble one day ; they were having a new one-storey factory constructed over a large area, and had just been informed that over forty steel roof trusses with their supporting stanchions had collapsed during erection. In this case, I found the cause was insufficient shoring and bracing of the steelwork while being put together, but I also found that there was insufficient strength in various parts, and that had the failure not taken place when it did the catastrophe might have been much more serious.

A fruitful but often unsuspected source of overloading is the concentration of weight over a limited area of floor space, although the total load on the floor at the time may be trifling compared with what it would carry uniformly distributed. When I was asisting the London County Council in drafting the " Steel Frame Act," I urged that the notice which reads " In every building of the warehouse class, a notice shall be exhibited in a conspicuous place on each storey of such building stating the maximum super-imposed load per square foot which may be carried on the floor of such storey " was not sufficiently explicit, and I desired to insert " on any portion of " before " the floor of such storey," but was overruled. I have found printing offices where parts of the floor have been loaded with more than double the authorised allowance, and in some cases the rolled joists have been showing serious deflection, which might lead to failure at any time, involving the surrounding structure as well as the overloaded portion.

On March 31st, 1919, a seven storey warehouse at Liverpool collapsed, when several persons were killed and many injured. The building was said to be 150 years old, but the Government were using it for storing seeds, grain, beans and peas. It is probable that the load exceeded what should have been put on a new building, as these articles weigh about 50lbs. per cubic foot. Sacks of grain close stacked in one tier weigh $1\frac{1}{4}$ cwt. per foot super, but they are often stacked in two tiers when there is sufficient height, and loose grain is stored as high as the structure and appliances permit without reference to the load put on the floor thereby. Every warehouse should be designed for a minimum load of $2\frac{1}{2}$ cwt. per square foot, whatever the present intention of its use may be.

In the case of rolled joists as stanchions, those sections should be selected that have the least difference in the inertia moments, or the section modulus, in the two directions, and for this reason broad flange beams make good stanchions. Then it should be remembered also that a load coming on one side of a stanchion, even through it is bracketted on to the web, introduces a bending moment which puts a far more serious stress upon it than is given by a central or axial load. Generally speaking, a load from a girder on one side of a stanchion will be equal to 2½ times the same load carried centrally. If the girder is continued over the top of the stanchion, but loaded on one side only, the effect will not be quite so great, but even then will often have the same result upon the stanchion as if it were fully loaded on both sides.

Cast iron pillars are now discarded for warehouse construction, owing to the difficulty of securing sufficient stability between the various floors. In America, some very serious failures have occurred from the use of cast iron pillars, the buildings collapsing like a house of cards.

Piers projecting from walls should be well bonded to the wall, and the foundations carried round them to support the additional load. In this connection I may remind you of a curious fact that I proved in the last paper I had the honour of putting before you, *viz.*, that Buttresses 18ins. by 4½ins., 12ft. centre to centre, added to a 9in. wall 6ft. high, instead of reducing the stresses in the brickwork due to wind pressure, increase the compressive stress by 30 per cent. owing to the larger mass being collected nearer the neutral axis.

The foundations for the stanchions of a warehouse require thoughtful care, as the chief loads are there concentrated. I remember a glass bottle warehouse at Camden Town, where the pillar foundations sank considerably directly the warehouse was filled. Most books on Construction give tables of the safe load upon different soils, but the soils themselves are not found to be labelled when the excavations are made, so that the architect has to judge for himself what they are capable of carrying. If he limits the load to 1½ tons per square foot on gravel and ½ ton per square foot on clay, he will generally be safe. There are many cases where it might be quite suitable to put four times this load upon the soil, but then one must be quite sure of all the circumstances affecting the case. On gravel, the bottom of the foundations may be as little as 2ft. 6ins. from the surface, but on clay, if they are less than 5ft., considerable risk will be run from expansion and contraction due to alternations of moisture and drought. On one occasion in inspecting the foundations for a Manager's office and residence at some Works I had designed to be erected on made ground, I took the precaution to test the bottom of the trench with a pavior's rammer and discovered two or three cartloads of old lath and plaster partition just below.

Some of the greatest difficulties occur in connection with foundations, particularly for riverside warehouses. The soil generally varies from a light open ballast to a semi-compact mud, liable to become fluid when penetrated by moisture. These are usually followed at a depth of 12 to 18ft. by a good layer of firm gravel with London clay below. The gravel will carry possibly 5 or 6 tons to the square foot with safety, but I do not put more than 3 tons to the square foot on it as a general rule. In many cases the foundations have to be supported upon the light soil above, as without basement rooms it will not pay to go down to the firm gravel, and then a reinforced concrete raft is the only feasible plan.

The introduction of reinforced concrete is still sufficiently recent to be able to call it a new method of construction, and as such there are naturally many pitfalls to be guarded against. At first even the experts did not know what contingencies they had to meet and shear stresses were ignored. They also failed to appreciate the importance of grading their aggregate so as to get denser concrete. They permitted the use of coke breeze, and this was unfortunately emphasised by the British Fire Prevention Committee showing that a breeze concrete floor did not collapse so soon as one made with flint gravel or limestone, but it has many defects. I have, unfortunately, had before me a number of cases of failure of reinforced concrete buildings, but the causes may be summed up under two heads, ignorant designing and careless workmanship, and they were often associated. In one case the reinforcement of the floor beams did not reach to the ends, so that they simply sheared through the concrete when the load came on. In another case, the floor fell directly the supports were removed, because the cement was deficient in quantity and quality. A warehouse, constructed with a flat roof and parapet wall to act as a tank, was partially wrecked by letting the overflow pipe become stopped up so that the water level rose until the roof gave way. A factory with very heavy loads was constructed with a substantial basement, but owing to the shear members of the beams being displaced during construction, dangerous cracks developed, and very expensive brickwork supports had to be provided. At the same place some of the pillar reinforcement and even the pillars themselves were not over each other on adjacent floors, so that undue stresses were caused, and the whole job was unsatisfactory. In another case of collapse, the reinforcing rods of the floor slab had been cut through to allow of circular openings being made and no trimming round the hole was provided to carry the load, the adjoining steel rods only being sufficient for carrying the portion of slab covering them. Another case, where a new factory collapsed with fatal results before the erection was completed, demonstrated almost every possible fault. The concrete span roof had no extra reinforcement at the part where the maximum stress occurred, and the roof principals were not connected to the wall piers, only rested on them. The reinforcement in the latter stopped short some 2ft. 6in. from the eaves. Many mistakes were made in calculating the sectional area of the reinforcement, and in the wide foundation to the walls it was shown at the upper side instead of the lower. Then as to execution, the work went on very slowly and continued through a frosty winter without any precautions ; the foreman and men were changed during the time ; the aggregate for the concrete was obtained on the site and not washed ; part of the " sand " consisted of the dust from broken bricks ; the brand of cement was changed during the progress of the work ; after the collapse there were places found where the pebbles could be taken out in loose handfulls, showing absence of cement and improper mixing ; at other parts, the concrete had been frost-bitten and was as soft as if just mixed, although perhaps three months old ; ends of the reinforcing rods were sticking out of the sides of the beams ; some of the pillars were bent and out of upright, showing carelessness in fixing and shoring the form-work. The Concrete Institute have just published a 6d. pamphlet giving detailed instructions to Clerks of Works and others about the execution of reinforced concrete work that should go far to prevent such gross practices in the future. The Reinforced Concrete Regulations of the London County Council lay down the rules of designing with sufficient clearness and fullness to enable a conscientious man to prepare a safe design, but that is not sufficient unless the greatest care can be taken to supervise the execution of the work. Some authorities insist that the calculations shall accompany the designs, before they can give their sanction to the erection. The only advantage in this is that some calculations will be imperative, it will not in any way ensure that the building is properly or safely designed. If the idea is that it will enable the district or local surveyor to check the design, I can only say that the calculations would be of no use to an incompetent critic, and a competent one would rather be without them, and make his own calculations.

As a fire resisting material, reinforced concrete is only approached by good brickwork, but it has the advantage over the latter in being capable of being used alone for floors, staircases, etc. In the great fire at San Francisco, its superiority was most notable, and equally so in the results of the great explosion at Silvertown.

Reinforced concrete has another distinct advantage, it is that any damage caused to it is generally confined to that particular spot. For example, at Port Talbot a 4,000 ton steamer ran into a reinforced concrete jetty and buried its stem in the front portion, but the damage was purely local and the cracking of the deck did not extend more than 3 feet beyond the point where the ship's stem came to rest. Another instance of the localisation of damage when reinforced concrete is used occurred at Lens in France, where a derailed train of railway wagons ran into one of the supports of a coal bunker and broke it through, but no collapse occurred, although the bunker contained 1,200 tons of coal.

Reinforced concrete is particularly well adapted for warehouse construction, providing that it is used intelligently. It is naturally a plain looking material, but by dividing up the exterior into piers and panels, with a plinth, frieze, cornice and blocking course, it can be made quite sightly. It requires no periodical painting, is not affected by the weather, and has not been in existence long enough to enable the duration of its natural life to be determined. The greatest objection I have heard against it is that it costs more to pull down that it does to put up. The usual construction inside consists of pillars, 15 to 20 ft. centre to centre, with main beams across them in one direction, and cross beams 5 to 6 ft. centres in the other direction, and a continuous floor slab, 4½ to 6ins. thick, with angle brackets on the pillars, and fillets at all the junctions of beams and slabs. The concrete is usually a mixture of 1 cement, 2 sand and 4 larger aggregate and is allowed to be stressed to 600lbs. per square inch compression under working conditions, the steel at the same time being allowed 16,000lbs. per square inch tension.

The larger aggregate may be of practically any size for mass concrete, but for reinforced concrete it should vary in size from ¼ inch to a maximum of ¾ inch, and the sand may vary between $\frac{1}{50}$ inch and ¼ inch. The cement should be slow setting and always comply with the British Standard specification. Hard broken brick is suitable for use, except Fletton bricks which contain sulphur and may cause expansion and disruption.

I will not worry you with the orthodox formulae for reinforced concrete, they are rather complex and very troublesome to use. I will give you instead some approximate rules of my own, which will give you a fair idea of the dimensions to adopt. The maximum of economy is obtained when the materials are stressed up to their working limit under full load, the reinforcement then being 0·675 per cent. It will be near enough if you take the area of steel in section as 1 per cent. of the area of concrete above the centre line of the steel, or what is called the "effective depth." Then $W = \frac{0{\cdot}6\ b\ d^2}{L}$, W being safe load in cwts. distributed along the beam or strip of floor slab, *b* breadth in inches, *d* effective depth in inches, L clear span in feet. To find the external load that can be put on it, or the superimposed load, the weight of beam or slab should be deducted. Approximately, the effective depth in inches of a slab or beam with 1 per cent. reinforcement $= \sqrt{\frac{B}{1296}}$ where B = bending moment in lb.-ins. per foot width of slab or beam. When the floor slab is continuous over several spans, the outer bay should be about three-fourths the width of the others for equal thickness, and if proper provision is made for the reversal of stress over the supports the safe load per foot super may be taken as 1½ times what it would be on a portion of floor taken as a single beam supported at the ends.

I am afraid this paper is rather more scrappy and conversational than you usually have, but in the course of my practice so many failures are submitted for my consideration that perhaps I am liable to give that aspect of the subject undue prominence. At any rate, I trust that I have given you some matter for reflection, and that the hour occupied will not be wholly lost time.

I have now some lantern slides to show you that I will explain as they appear; for the loan of some of them I have to thank the Concrete Institute, Dr. Faber, Mr. E. P. Wells and Mr. H. K. Dyson.

DISCUSSION ON PROFESSOR ADAMS' PAPER.

SIR CHAS. T. RUTHEN, O.B.E. (Vice-President) proposed a hearty vote of thanks to the lecturer for his able and interesting paper, and said that however experienced an architect might be he was bound to learn something from a paper by so eminent an authority as Professor Adams. The lecturer had had a very long experience, and must be a lover of reinforced concrete, which was, the speaker thought, the construction of the future. Unfortunately, as Professor Adams had shown in many of his slides, the success of reinforced concrete rested very considerably upon the human element. Granted that the design was good, unless the component parts were also good and the work well carried out, reinforced concrete was about the worst form of construction, but if the design was good and the aggregate properly graded and in good proportion, there was no better system. Given a really bad site, such as part of an old foreshore with the basement level about fourteen inches above high water mark, he really wondered what an architect would do without reinforced concrete. Professor Adams' long experience had given him a large amount of knowledge, and it was a very good thing for the younger members of the profession that experts like Professor Adams were willing to come forward and give others the benefit of their advice. The lecturer had the happy knack of being able to explain quite a lot in a very short time.

MR. W. H. LEVERTON, in seconding the vote of thanks, said they were indebted to Professor Adams, not only for his paper read that evening, but for many useful text books which were a great use to the student. With regard to the lecturer's remarks on beams, a certain firm of reinforced concrete specialists who had seven rods in a beam only ran one through the end and turned up all the others, and yet he had never heard of any failure of their system.

An expert of his acquaintance thought it far better to have brickwork for external walls, because at certain times of the year, owing to the difference between the internal and external temperatures, reinforced concrete was liable to show nasty cracks.

MR. D. J. MOSS (Member) said he hesitated to challenge Professor Adams' statement that the economic section was that in which steel and concrete are stressed in full, but actually he thought it was not so. They had to take into account the cost of centering and of other materials being used which would bring his formula to the root of the bending moment over 4,000, which was the formula used at the present day by the leading engineers. Another point in the paper was the recommendation to use brackets on a column, which he thought was not economical, as the extra cost of centering would run out to more than the extra steel put in the beam.

MR. NOEL D. SHEFFIELD (Hon. Secretary) thanked Professor Adams for his paper and pleasant reminiscences. Owners of warehouses were apt to think they could stand anything on a steel joist, and in one case which had come under his notice the owners had discovered they had a flat roof, and as floor space was very desirable, particularly at the present time, they had had placed there a lot of Italian statuary in marble. Fortunately, he had found it out in time to prevent anything serious happening. In another case the head room was interfered with by a deep beam, and the owner's suggestion was that the beam should be turned on its side. In the case of an old wooden house which had collapsed he had seen a beam broken exactly in the way shown in the text books, with the fibres in compression and tension all torn apart. He would have liked to have heard something about the use of reinforced concrete for piling, and as to how it compared with wooden piles or the method of driving down a metal cylinder and then filling it in with concrete.

The vote of thanks to Professor Adams for his paper was then put to the meeting by the President, and carried unanimously.

Professor Adams replied to the points raised, and offered to answer more specific enquiries in writing if those concerned would communicate with him. He did not quite follow the meaning of Mr. Moss's contention that the cost of centering would run out to more than the extra cost of steel in beams. With regard to piling, he had recently read a paper before the Concrete Institute, and some twenty years ago one before the Society on Piling and Foundations. It was a subject that had been of great interest to him for many years, and at the present time it was only a question of which sort of concrete piling they would use and not whether they would use timber. There was the pre-cast method where the piles were made in boxes, and the other where a hole was made in the ground and concrete poured in, or a steel pipe driven in and filled with concrete, after which the pile was withdrawn. Generally speaking, the pre-cast method was preferred, because it conformed to methods of driving which they were more accustomed to in the use of ordinary timber. The other forms were, however, very good and economical.

The paper read by Professor Henry Adams before The Society of Architects on the 18th inst., on " The Need for More Care in Warehouse Design," contained a good deal of information that would be extremely useful to architects who might be taking up the design and construction of that class of building. Continuous beams in reinforced concrete were particularly referred to. It is interesting to note that Mr. H. Brodrick, in a paper reported in the *Builder* on September 26th last, stated that more steel was really required in a beam designed as " continuous " than if merely designed as " supported," as so much was necessary to resist the negative moments at the supports, particularly the compressive ones at the bottom of the cantilever portion, where practically the whole strain has to be taken by the steel ; the compressive strains in the centre of the beam, if a floor beam, being taken by the concrete slab. Professor Adams, who, of course, is an engineer of great experience, does not agree with this. On the other hand, he does not consider, if the beam is calculated as " supported " and is really continuous, that there is any danger of cracks occurring in the upper portion near the supports, owing to the absence of tension steel. It would act as designed, he says. Mr. Brodrick considers there is a danger of cracks occurring there. It probably depends upon the factor of safety ; if it is sufficiently high there will be no cracks. It would be desirable to have this question cleared up and an authoritative decision given, if possible.—*The Builder*.

Bridgwater and Ilfracombe Housing Competitions.

The Council of The Society of Architects requests Members not to take part in either the Bridgwater or Ilfracombe Housing Competitions, until the conditions have been amended to meet the requirements of the competition regulations of the Society.

Report of The Council of the Society of Architects

For the Year ended October 31st, 1919.

(*To be presented at the Annual General Meeting on January* 15*th*, 1920).

THE Society has held sixty-eight meetings during the year, of which sixty-one were Council and Committee meetings, and the remainder Ordinary meetings, for the transaction of general business.

The increasing amount and importance of the work of the Society necessitated the Council meetings being held throughout the year, without the usual summer recess.

MEMBERSHIP. One hundred and thirty-five candidates were admitted to Membership, being one hundred and four in excess of 1918; eleven Members were reinstated; and five Graduates and four Students were elected.

After allowing for deaths, resignations, lapses, removals, and transfers, the total Membership on October 31st, 1919, was 1,269, made up as follows, last year's figures being added for the purpose of comparison :—

	1918.	1919.
Members	982	1,102
Hon. Members ..	26	26
Retired Members ..	33	35
Graduates	8	12
Students	121	94
Total ..	1,170	1,269

The Society has sustained the loss by death of the following :—

Members—*CAPT. G. K. HEDLEY (London), *CAPT. J. A. METTHAM (Grantham), *CAPT. G. A. SUTHERLAND, M.C. (Sutherland), A. SCOTT (Dublin), J. F. WETHERELL (London), W. F. BIRD (Bristol), G. H. MANNING (Aylesbury), R. W. COVENTRY DICK (B.C.), B. R. TUCKER (London), C. O. LAW (London), E. O. SACHS (London), G. E. DICKENS LEWIS (Aberystwyth).

Students—*LIEUT. W. H. REBBECK, M.C. (Stafford), *LIEUT. R. H. RICHARDSON (London), *J. GOMM (Brentford), C. J. RHODES (Lytham), R. C. E. GRIFFITHS (Bridgend), E. TIMMINS (Birmingham).

RESIGNATIONS. The resignations of the following have been accepted :—

Members—R. N. BLACKBURN (Loughborough), H. C. CHEVALIER (Richmond), D. C. DAVIES (Merthyr Tydfil), G. M. Seels (Dorchester).

Student—S. V. BRADFORD (Eastbourne).

TRANSFERS. The following Members have been transferred to the Retired List: C. J. HIGGINS, London (1887-1919); E. J. HAMILTON, Brighton, Past President (1887-1919).

WAR SERVICES. Four hundred and fifty Members of the Society in all classes are known to have served in H.M. Forces during the War, 1914-18, of which number thirty-three gave their lives.

The total number of honours and awards bestowed upon Members of the Society for military service was sixty-six.

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* Killed in action or died on service.

SECRETARIAL STAFF. Early in the year it became evident that a more adequate staff was required, to deal with developments and extensions of the Society's work, and in May last the Council appointed as Assistant-Secretary CAPTAIN M. G. KIDDY, late R.A.F. Mr. W. E. WANMER, who was severely wounded while on service with the Artists' Rifles in France, resumed his duties with the Society on demobilisation in February, 1919. SERGT. J. JONES, of the R. W. Kent Regt., who was also wounded, and whose place was also kept open, decided not to return to his position in the Society.

REPRESENTATION. The Society is represented on the Executive of the following bodies :—

ARCHITECTS' BENEVOLENT SOCIETY; ARCHITECTS' AND SURVEYORS APPROVED SOCIETY; ARCHITECTS' WAR COMMITTEE AND ADVISORY COUNCIL, AND THE EXECUTIVE, SELECTION, EMPLOYMENT, RE-ORGANIZATION, AND ASSISTANTS' WELFARE COMMITTEES; THE BEAUX ARTS COMMITTEE; BELGIAN TOWN PLANNING COMMITTEE; BUILDING INDUSTRIES CONSULTATIVE BOARD; JOINT CONFERENCE ON CIVIC SURVEYS; MINISTRY OF LABOUR CONSULTATIVE COMMITTEES; NATIONAL HOUSING AND TOWN PLANNING COUNCIL; NATIONAL HOUSING CONFERENCE; PROFESSIONAL CLASSES WAR RELIEF COUNCIL; BUILDING MATERIALS SUPPLY COMMITTEE.

SERVICES TO OTHER BODIES. The free use of the Society's premises, together with the services of the Secretary and clerical staff, have again been placed by the Council at the disposal of the Beaux Arts Committee and of the Professional Employment and Re-organization Committees of the Architects' War Committee. The Beaux Arts Atelier is also housed by the Society, and the Lecture Room was placed, free of charge, at the disposal of the Architectural Association for the accommodation of its students for several months, pending the completion of the A. A. extensions.

The Council also renewed the facilities given to the Hospital Officers' Association for their meetings.

THE BEAUX ARTS ATELIER. As it was found impossible to obtain suitable premises elsewhere, and the present accommodation was not sufficient to enable the Atelier to be re-started on pre-war lines, the Council decided to extend the lower ground floor hitherto occupied by the Library, to cover in the open space in the rear, and to hand over to the Beaux Arts Committee, for the time being, the whole of the Western annexe, comprising a self-contained Atelier on two floors, with every convenience for carrying on this important educational work, which has been the means of establishing this system of architectural education in this country, and of paving the way to a scheme for co-ordinating architectural education in the country under the auspices of the Royal Academy of Arts.

PUBLICITY. A record kept of the Society's press publicity programme since June shows that articles, paragraphs and letters communicated or inspired by the Society have appeared on over 200 occasions in the leading London and provincial newspapers and the professional journals. As a result of this publicity, the Society's objects have been made better known to the public and to the profession, its influence more widely extended, and its membership materially increased. The Society's views on professional matters are increasingly sought by the Press and by public bodies and architects within and without the Society.

EDUCATIONAL MATTERS. In addition to the help rendered to the Beaux Arts Committee, the A. A., and other educational bodies, the Society has constantly advocated through the medium of the Press and in other ways, the advantages which the public, the profession, and the Art would derive from the establishment of a Ministry of Fine Arts, containing a National School of Architecture. When the Society entertained H.M. First Commissioner of Works, the Rt. Hon. SIR ALFRED

MOND, Bart., M.P., and other distinguished guests, including the President of the R.I.B.A., at a luncheon, the question of Architectural Education was discussed, and the advantages of the Beaux Arts system of training and of the foundation of a National School of Architecture advocated, and afterwards more practically demonstrated by the exhibition of Beaux Arts drawings shown at the Society's premises and explained in a series of criticisms and explanations given by Mr. ARTHUR DAVIS, the Patron of the First Atelier of Architecture in London.

The Society's lantern slides have been in considerable demand for lectures on Architecture to the Army of Occupation, given under the auspices of the Y.M.C.A. by MR. G. A. T. MIDDLETON. These lectures were attended by hundreds of soldiers, who expressed their great appreciation of the Society's action.

EXAMINATIONS. A Graduateship examination was held at Colombo. Ceylon, in September, 1918, and the Special War Membership Examination in Cologne on October 17th, 1919, by arrangement with the Army Educational Authorities, under the direction of MR. G. A. T. MIDDLETON, of the Pool of Instructors, G.H.Q.

The Council decided, in the interests of those concerned, that Candidates who had served in H.M. Forces during the War, 1914-1918, for not less than two consecutive years, or who had been discharged or had resigned their Commissions after a less period owing to wounds or other disabilities caused by such service, should be eligible as Candidates for Graduateship or Membership of the Society as the case may be, provided they had reached the age of 21 years for Graduateship and 25 years for Membership, and were otherwise eligible and qualified under the regulations.

FUTURE OF ARCHITECTURE. At the invitation of the R.I.B.A., the Society gave evidence before the R.I.B.A. Committee on the future of architecture. The questions raised related principally to Professional Education Training and Unity and Statutory Registration. The views expressed by the Society's representatives on these and other points were afterwards confirmed by the Council, who intimated their willingness to consider further any proposals put forward by the R.I.B.A. for the betterment of the profession. The Society was given to understand that the Committee's findings would be published, but so far no report has been received by the Society.

ARCHITECTURAL COMPETITIONS. The following Competitions were barred by the Society, owing to the conditions being unsatisfactory :—Blaenavon, Bolton, Birmingham, Grange-over-Sands, Worcester, Newcastle-on-Tyne, Ipswich, Glasgow, Edinburgh, and Cosford.

The ban on Birmingham and Newcastle was afterwards withdrawn on the conditions being amended.

As it was clear that the tendency of Local Authorities promoting Housing Competitions was to follow the unfortunate precedent set by the R.I.B.A. in connection with the National Housing Competition to which the Society took exception on the ground that they violated their own (R.I.B.A.) Regulations, the R.I.B.A. was invited by the Society to state what policy they proposed to adopt in the future. The reply was to the effect that all architectural competitions which came within the scope of the Regulations and did not conform to them would be strictly barred by the Institute.

The Secretary of the Society was afterwards made a temporary Hon. Member of the R.I.B.A. Competitions Committee, and a proposal was made to the Institute Council for the formation of a permanent joint Competitions Committee, which has not yet been formed.

In some cases Members have drawn the attention of the Council to unsatisfactory conditions of competition too late for any action to be taken. This is particularly the case where the Members who furnish the information reside abroad. Members are therefore urged, where necessary, to make a personal protest to the promoters at the time, and to inform the Council by letter.

ACQUISITION OF LIGHT (RESTRICTION) BILL, 1918. In response to an invitation from the R.I.B.A. to express an opinion on the draft of a Bill to amend the law relating to the Acquisition of Light, the Society found that it was not in agreement with the proposal as drafted, and expressed the view that the matter was one for consideration by a joint Committee. The R.I.B.A. did not see its way to adopt this suggestion, on the ground that time did not permit of it. That was in November, 1918, and so far as the Society is aware, no further progress has been made by the R.I.B.A. The Secretary of the Society drew attention in the professional journals to the action taken by the Society twenty-one years ago, to amend the law so as to set a definite limit in each case to which a building owner could go with impunity.

DEVELOPMENT AND RECONSTRUCTION. Having established the Professional Advice and Defence Regulations, the Council has since perfected other portions of the reconstruction scheme outlined in the last report. The chief of these has been the establishment of a publicity department, the reconstitution of the Membership, the improvement of the JOURNAL, etc.

FORM OF BUILDING CONTRACT. Representatives of the R.I.B.A. and of the Society met with a view of considering the question of issuing a joint form of Building Contract. The Institute representatives put forward a suggestion to their Council, the record of which was not agreed to by the Society's representatives, the negotiations became abortive, and the Society decided to issue their own long-deferred Form. There has been a considerable demand for these documents from Members, and also from Public Authorities.

BUILDING MATERIALS RESEARCH COMMITTEE. The data on Cottage Building received from Members of the Society was scheduled and submitted to the Building Materials Research Committee. The fact that so many Members of the Society were serving with H.M. Forces militated against anything like a representative expression of opinion or record of experiences being forthcoming from Members within the stipulated time.

The Council's views on certain matters referred to them were communicated to this Committee, and subsequently the Ministry of Reconstruction invited the Society to nominate a representative to serve on the Central Building Industries Committee. MR. A. ALBAN H. SCOTT, Senior Vice-President, was nominated by the Council, and was afterwards appointed by the Committee as the professional representative on a Sub-committee dealing with certain aspects of the matter under consideration. At a later date MR. ALBAN SCOTT was appointed Chairman of the Ministry of Health Committee charged with the duties of examining and reporting upon new methods of house-building construction.

POLICE PLANS. The attention of the Council was called to a report of a case in which plans drawn by the police were accepted by the Court, and the Judge was stated to have suggested that a Surveyor's fees were thus saved. A communication to the professional journals and the local Press was made by the Secretary, and copies of it were sent to interested parties and to the Home Secretary. The latter expressed the view that there was nothing in the procedure complained of to throw doubt on the advisability of obtaining the professional services of an Architect or Surveyor for other purposes. The Society afterwards received appreciative letters for their action from the Architects who had originally raised the question.

EMPIRE WAR MEMORIAL. The Society's proposal that an Advisory Committee should be set up, consisting largely if not entirely of Architects, to deal with the question of War Memorials involving questions of architectural composition and design, was favourably received by the professional Press.

MINIMUM WAGES FOR CLERKS OF WORKS. A deputation from the London Association of Clerks of Works waited upon the Council and asked for its support to a proposal for fixing a minimum wage for Foremen and Clerks of Works. The views of the deputation commended themselves to the Council, which expressed itself as in sympathy with the proposals in principle.

BRANCHES OF THE SOCIETY. An application from Members of the Society practising in Dublin was received for the formation of an Irish Branch of the Society with headquarters in Dublin, and was approved by the Council and by the general body of Members.

Unfortunately, MR. ANTHONY SCOTT, the local Hon. Secretary and prime mover in the proposal, died shortly afterwards, and it has not been possible as yet to replace him; but the resolution to constitute the Branch holds good, and it is hoped that the initial difficulties will be overcome in due course.

SESSIONAL PAPERS. The following papers have been read before the Society during the year under review :—

Jan. 16th :	"Town Housing of the Working Classes," by MAJOR H. FREYBERG (Member of Council).
Feb. 20th :	"Notts. *v.* Cardiff Corporation," by MR. VALENTINE BALL (Barrister-at-Law).
March 20th :	"Italian Architecture," by MR. (now SIR) AMBROSE POYNTER (Member).
April 24th :	"Housing and Town-planning," by MR. (now SIR) C. T. RUTHEN, O.B.E. (Member of Council).
May 22nd:	"Beaux Arts Training," by MR. A. J. DAVIS (Patron of the Atelier).
Oct. 16th :	"British House Building Methods," by SIR C. T. RUTHEN, O.B.E. (Member of Council).

GOVERNMENT HOUSING SCHEME. A deputation from the Society waited upon the President of the L.G.B. (now the Ministry of Health), Dr. Addison, on February 19th, 1919, urging the employment of architects on National Housing Schemes, and making suggestions for a drastic revision of the Building By-laws. The deputation was received by Major Waldorf Astor, M.P. (now Viscount Astor), Parliamentary Secretary to the L.G.B., in the unavoidable absence of Dr. Addison.

Previously (January 21st) the same deputation had waited upon H.M. First Commissioner of Works, the Rt. Hon. Sir Alfred Mond, Bart., M.P., on the question of Government Departments undertaking architectural work to the detriment of architecture and of the private practitioner.

In both cases the deputation was most courteously received, and the views of the Society, which were put forward frankly and plainly, were freely and fully discussed.

Since then the Ministry of Health has made recommendations to Local Authorities in regard to the employment of architects on State-aided Housing Schemes, and has also relaxed Building By-laws; while H.M. Office of Works has shown itself to be in sympathy on principle with the Society's views on such matters as Architectural Education, and has cleared up certain misunderstandings as to its attitude towards architects in private practice.

On April 14th the Society circularised all the Local Authorities in the United Kingdom, giving reasons for urging them to place their Housing Schemes in the hands of qualified independent architects, and offering the services of Members in various districts who are specially qualified in this work.

A number of enquiries for the services of Members were received in response.

Several Members of the Society received housing appointments under the Ministry of Health, including MR. H. T. A. CHIDGEY appointed Chief Surveyor, and MAJOR WIGHTMAN DOUGLAS, D.S.O., Housing Commissioner for Cambridgeshire.

The Society drew the attention of the Ministry of Health to the action of a Local Authority in appointing a Joiner as Architect to a State-aided Housing Scheme over the heads of a number of qualified architects. No reply has so far been received.

In several cases where candidature for the appointment of Housing Architect was restricted to Members of the R.I.B.A., the Society communicated with the Local Authorities concerned, and urged with success that public architectural appointments should be open to all qualified candidates.

The attention of the Society was drawn to the action of the L.G.B. of Ireland in restricting admission to its Housing Panel of Architects to members of the R.I.B.A. or the R.I.A. of Ireland. Action was taken on similar grounds, and a number of Members of the Society have been admitted to the Panel who would otherwise have been shut out.

POINTS OF PRACTICE. The Practice Committee has advised Members on such points as claims for professional fees, and questions of professional etiquette and usage.

PLYMOUTH TOWN PLANNING SCHEME. At the invitation of the Plymouth Town Council, the President of the Society nominated candidates for the position of architect to the town-planning scheme, and in doing so, he expressed a hope that the person appointed would collaborate with local architects, and that the latter would be entrusted with the designing and supervision of the houses. It is understood that this procedure was adopted.

PARLIAMENTARY PROPAGANDA. The Council have taken steps to interest certain Members of Parliament in architectural matters with a view to facilitating the consideration in Parliament of questions affecting architecture and architects. Several M.P.'s have been interviewed, and have offered their co-operation to the Society.

STUDENTS COMPETITIONS. On the declaration of Peace, arrangements were made for resuming the Society's Scholarship and Studentships on pre-war lines.

WAR MEMORIAL—VICTORY SCHOLARSHIP. The Members were invited by circular to submit suggestions for a memorial to commemorate the services of Members of the Society with H.M. Forces and to perpetuate the memory of the dead. As a result of the proposals received, the Council decided to erect an appropriate tablet on the premises at the expense of the Society, and to invite contributions from Members to a "Victory Scholarship Fund" sufficient to provide a sum of £50 per annum when invested, to be utilised by the winner for educational purposes; the Scholarship to be open to any person under the age of 30 years.

Members who have not yet subscribed are invited to do so if they are in sympathy with the proposal.

PUBLICATIONS. The monthly issue of the JOURNAL, which had appeared quarterly during the war, was resumed in January, 1919.

FIRE INSURANCE. New Fire Insurances have been effected on the Society's premises and contents on the basis of a valuation made for that purpose, in view of current prices.

STATUTORY REGISTRATION. Arrangements have been made for actively resuming the Society's Registration propaganda at the first convenient opportunity, and no effort will be spared to bring about the desired result.

ARCHITECTS' DEMOBILIZATION COMMITTEE. The Secretary represented the Society on this Committee, which was formed at the request of the Military Authorities, and was instrumental in assisting with the early demobilization, as pivotal men, of some hundreds of architects. The Society also contributed a sum of ten guineas towards this Committee's expenses.

REPRESENTATION AT CONFERENCES. The Society was officially represented by invitation at the following Conferences :—

R.S.I. Conference, London, March 13th-15th, 1919. The President, MR. E. J. SADGROVE; and MESSRS. A. ALBAN H. SCOTT, THOS. WALLIS, and MAJOR H. FREYBERG.

Inst. of San. Engineers. MR. A. ALBAN H. SCOTT, MR. (now Sir) C. T. RUTHEN, O.B.E., and the Secretary.

R.I.B.A. Conference on the Building Industry. The President, MR. E. J. SADGROVE, and MESSRS. E. J. PARTRIDGE and HARRY GILL (who contributed a paper on the relations of the architect, builder and workman).

R.S.I. Conference, Newcastle, July 28th-August 2nd, 1919. MR. J. W. BOYD.

AMERICAN INSTITUTE OF ARCHITECTS. The Society had the pleasure and advantage of a visit from Mr. Charles H. Whitaker, the Secretary of the A.I.A. Post-War Committee on Architectural Practice, and it is hoped that in due course the general body of Members may have an opportunity of discussing with him certain problems of professional interest.

SCALE OF PROFESSIONAL CHARGES. The Council has been pressed by some Members of the Society to revive the proposal for a separate Scale of Charges, and after careful deliberation expressed the view that it was not desirable in the interests of unity to do so if it could be aovided. It was subsequently decided, as a result of circularising the Members, to adopt the new R.I.B.A. Schedule, including the special Housing Scale, and to endeavour to obtain permission to reprint them with the Society's name thereon. This permission has been granted in general terms by the R.I.B.A. Council, and both Scales have been printed in the Society's JOURNAL for the information of Members.

REPRESENTATION ON OTHER BODIES. By invitation of the following bodies, the Society is officially represented thereon :—

The London Society, by MR. PERCY B. TUBBS.

Building Industries Consultative Board, by MR. E. J. SADGROVE.

Ministry of Labour Selective Committees : BELFAST, Mr. G. W. Fergusson ; BRISTOL, Mr. E. Williams ; CAMBRIDGE, Major C. F. Skipper ; CARDIFF, Sir C. T. Ruthen, O.B.E.; DUBLIN, Mr. R. M. Butler ; EXETER, Mr. C. Cole ; LEEDS, Mr. W. S. Braithwaite ; LONDON, Mr. E. J. Sadgrove ; MANCHESTER, Mr. A. J. Murgatroyd ; NEWCASTLE, Mr. J. W. Boyd ; NOTTINGHAM, Mr. H. Gill.

Testing Conference (Institution of Civil Engineers), by PROFESSOR ADAMS.

FINANCES.—The circumstances under which the Society's work has been carried on during the past financial year have been different from any other similar period, and therefore it would be misleading to use the figures of other years for the purposes of comparison, except as an indication of the continuous rise in cost of everything essential to carrying on the work of the Society. At the commencement of the financial year, which coincided with the Armistice, the Council decided in the interests of the Members to resume the Society's pre-war programme and procedure, and to continue to extend its scope under the reconstruction scheme. This meant, as the President pointed out, administering a post-war undertaking on a pre-war income, which could only end eventually in financial loss, and it would be absolutely necessary to ask the Members to increase their Annual Subscriptions.

The General expenses are nearly £100 above the average, a good deal of which sum is accounted for by increased insurances, valuations and other items, which do not occur every year. The House expenses, though nearly twice as much as last year, are yet below those of 1915, for instance.

The increase in postages and printing is due not only to the automatic rise in cost of these commodities, but to the fact that the monthly issue of the JOURNAL was resumed last January. The increase in salaries follows the enlargement of the staff, the resumption of payment of full salary to a demobilized member of it, and the additions made to the wages of the clerical staff by the Council from time to time to meet the increased cost of living.

The total expenses for the year were greatly in excess of last year, and the fact that there is even a small surplus for the year is due to the revenue from all sources having increased by £400 over last year. At the same time it is evident that the present rate of income from subscriptions leaves no margin for the extension of the Society's work and for meeting the further calls which will be made upon it in the near future. The need for a more substantial income is obvious. It will be noted that the Year Book shows a profit and that the nett cost of the JOURNAL was only £130.

The financial position as shown by the Balance Sheet is that the surplus of assets over liabilities has increased, and amount to over £5,000, and there is no charge on the securities or other property of the Society.

GENERALLY.—The past year has been one of transition from a state of war towards a peace footing. Many Members are returning from H.M. Forces and other forms of National Service to take up their professional work, and the Council is receiving frequent evidence that what little the Society has been able to do in looking after their professional interests has been greatly appreciated. The consideration has not been all on one side, and the Council gladly acknowledges the Society's great indebtedness to all those Members who often in circumstances of great difficulty have kept in touch with the Society, and have voluntarily and most generously continued their subscriptions or made some other contribution to the Society's funds.

The Society may justly be proud of the war services of its Members, and there is probably no other professional body of similar size which has a higher percentage of ex-Service Members or a better record of Members, who undertook other forms of National Services. The services of these Members are to be perpetuated by the establishment of a "Victory" Scholarship out of a fund to be raised by the Members, and a simple Memorial is to be placed in the Society's premises to the memory of those who will not return.

The Society of Architects' Revenue Account and Balanc

REVENU

	1918-19. £ s. d.	£ s. d.		1917-18. £ s. d.	£ s.
To Expenses—					
General	179 1 0		..	86 19 6	
House	121 8 6		..	68 19 0	
Postages	114 16 9		..	56 14 0	
Printing and Stationery	200 15 3		..	84 15 3	
Rent, Rates, Taxes and Repairs ..	238 5 9		..	269 0 1	
Salaries and War Allowances ..	963 0 1		..	793 0 8	
Commission	198 14 3		..	71 2 9	
Legal	2 4 6	2018 6 1	..	20 0 0	1450 11
,, **Publications—**					
Printing and Postages, *Journal* ..	589 6 3		..	175 18 1	
,, ,, *Year Book* ..	205 5 2	794 11 5	..	118 17 2	294 15
,, **Examination Expenses**		4 4 3	..	— — —	— —
,, **South African Branch**		28 4 3	..		32 18
,, **Interest on Overdraft**		— — -	..		1 17
,, **Social Functions**		80 18 4	..		— —
,, **Depreciation—**					
On Furniture	- — —		..	65 10 0	
,, Library Books	— — —		..	25 0 9	
,, Investments	3 7 7	3 7 7	..	— — —	90 10
, **Leasehold Redemption—**					
Sinking Fund		62 0 0	..		62 0
Surplus for the Year		56 8 9	..		559 15
		£3048 0 8			£2492 9

	£ s. d.	£ s. d.		£ s. d.	£ s.
To Donations—					
Benevolent Society	10 10 0		..	10 10 0	
Architects' Demob. Committee ..	10 10 0		..	— — —	
Sundry	3 3 0	24 3 0	..	8 8 0	18 18
Balance carried to Surplus		32 5 9	..		540 17
		£56 8 9			£559 15

BALANC

		1918-19 £ s. d.	£ s. d.			1917-18. £ s. d.	£ s.
To Sundry Creditors—							
Subscriptions and Entrance Fees paid in advance		169 11 6		..		100 5 6	
Sundry		184 8 0	353 19 6	..		96 0 0	196 5
,, **Extension of Premises a/c**			105 0 0	..			— —
,, Building Fund			109 11 6	..			109 11
,, **Professional Defence Fund**			355 0 0	..			345 0
Surplus—							
Balance as 31st Oct., 1918		3398 18 3		..		3342 15 3	
Entrance Fees ..	288 4 6				66 3 0		
Less Professional Defence Fund ..	10 0 0				10 0 0		
	278 4 6				56 3 0		
Plus Surplus for Year ended 31st Oct. 1919	32 5 9				— - —	56 3 0	3398 18
	310 10 3						
Plus appreciation of Furniture and Library as Valuation	1684 7 11	1994 18 2	5393 16 5				
			£6317 7 5				£4049 15

We have audited the above Balance Sheet with the Books of the Society, and have obtained all the information and explanations Society's affairs according to the best of our information and the explanations given us and as she

140, Leadenhall Street,
London, E.C.3.
December 22*nd*, 1919.

Sheet for the Year ended 31st October, 1919.

ACCOUNT.

	1918-19.		1917-18.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
By Subscriptions—				
Members	2153 0 6		2003 18 6	
Graduates	12 12 0		7 17 6	
Students	54 1 6	2219 14 0	67 14 6	2079 10 6
,, **Publications—**				
Advts. and Sales, *Journal*	460 9 6		157 12 3	
Year Book ..	215 8 3	675 17 9	146 1 8	303 13 11
,, **Examination Fees**		14 13 6		16 9
,, **Interest on Investments**		56 1 1		57 17 8
,, **Social Functions**		31 14 4		— — —
,, **Hire of Rooms**		50 0 0		50 10 6
		£3048 0 8		£2492 9 4

	1918-19	1917-18
	£ s. d.	£ s. d.
By Surplus for year brought down	56 8 9	559 15 5
	£56 8 9	£559 15 5

SHEET.

	1918-19.		1917-18.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
By Leasehold Premises	2448 11 7		2448 11 7	
Less Sinking Fund Account	124 0 0	2324 11 7	62 0 0	2368 11 7
,, **Furniture**				
As per valuation of Messrs. Tooth and Tooth	— — —	1600 0 0	— — —	95 5 8
,, **Library—**				
As per valuation	— — —	200 0 0	— — —	14 16 5
,, **Sundry Debtors—**				
Members	894 13 6		884 3 0	
Graduates	4 4 0		6 6 0	
Students	56 15 0		47 18 0	
Advertisers	207 19 3		37 7 9	
Sundry	71 2 8		4 11 11	
	1234 14 5		980 6 8	
Reserve for Bad Debts	588 15 6	645 18 11	751 16 1	228 10 7
, **Investments—**				
£568 18s. 8d. Met. Consl Stock at 55	315 15 1		315 15 1	
£850 5 per cent. War Loan at 92½ ..	784 2 6		787 10 1	
£200 Victory Loan at 85	170 0 0	1269 17 7	— — —	1103 5 2
,, **Investments—(Leasehold Redemption)** ..		124 0 0		62 0 0
,, **Cash at Bank**	149 15 11		159 2 6	
, **Petty Cash**	3 3 5	152 19 4	0 3 4	159 5 10
		£6317 7 5		£4049 15 3

have required. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the
by the books of the Society. The Furniture and Library have been subject to revaluation.

T. STEWART INGLIS, *Hon. Auditor.*
BOLTON, PITT, & BREDEN, *Auditors.*

The Society of Architects and "Luxury" Building.

The Council of The Society of Architects, at a meeting held on November 28th, unanimously resolved to make the strongest possible protest against the proposals of the Government to subsidise one form of private building enterprise, and at the same time to stop what they may consider to be "luxury building," which is another form of private building enterprise. The Council is of the opinion—and with it, in our opinion, all really well-informed people—that the present high cost of building is more largely due to the restrictions necessarily placed by the Government on building operations by private enterprise during the war than to any other causes, and that the present critical situation in regard to the National Housing Scheme is the result of Government control and management, which latter is also chiefly responsible for the restriction of the output in labour and the supply of materials.—*The Building News.*

We are glad to note that both the Royal Institute of British Architects and The Society of Architects are making strong protests against the proposals of the Government to stop what is called "luxury building," and we believe their action will receive the support of the whole profession—though we may add our regret that the two bodies are not acting as one in the matter, as they should be. It would be difficult to find a better cause for united action on the part of the professions than is afforded by the Government proposals, and the absence of it and the frequency of these duplicated efforts are among the causes which belittle the architectural profession in the public estimation.

Still, we are glad the two bodies are taking action. The Institute formed a sub-committee to prepare, for submission to the Government, a strong protest against the proposed restrictions on "luxury building." The protest will put forward the views which the Royal Institute has always advocated, *i.e.*, that building should be carried on by private enterprise untrammelled by any restrictions whatever. The Council of the Society have communicated to all members of Parliament in the House of Commons their "strongest possible protest against the proposals of the Government to subsidise one form of private building enterprise and at the same time to stop what they may consider to be 'luxury building,' which," it is stated, "is another form of private building enterprise."—*The Builder.*

We give in this issue an excellent letter by Mr. McArthur Butler on the subject of "Luxury Buildings," every word of which we can heartily endorse. After all, the small number of luxury buildings which Dr. Addison is aiming at, pay their way and bring in revenue to the State, which is more than can be said of the departmental schemes, which begin with promises which are never fulfilled, and end with losses—the amount of which cannot be estimated. The country is suffering not from luxury buildings, but from luxury departments, and the sooner the Government recognise this the better will be their electoral chances when the day of reckoning comes, as it must. Two great achievements of our present rulers are the present paralysis in the building trade and the absolute dislocation of our internal transit facilities, and we could do well without either.—*The Architect.*

The Society of Architects and Luxury Building.

In this issue we publish an important letter from Mr. C. McArthur Butler, Secretary of The Society of Architects, on the subject of the proposed Government restrictions on so-called " luxury building." Mr. Butler raises a very important point, and both architects and builders should take steps to see after their interests. In Ireland there is not, and it might be said, never was, any such thing as luxury-building. As a rule in Ireland, people only build when they are actually obliged to do so. Mr. Butler draws attention to an instance in London, where a firm who are about to build business premises, propose to expend more upon cottages for their employees than upon the proposed extensions. This may be typical of London, but it is not so in Ireland, and it rather suggests that it might possibly be a good thing if it were made mandatory for every firm employing more than a certain number of persons, and proposing to rebuild or extend, to expend a reasonable and moderate proportion on housing. Every little would help, and there are many commercial building enterprises where a moderate proportion of housing accommodation could be worked in economically, with considerable saving in roads, sewers, paving, lighting, plumbing and water supply, etc. For instance, a firm having a piece of waste ground or yard adjacent to their other premises, could run up one or more cottages, or even living accommodation in the shape of a flat, at very much less cost than a municipality could produce houses with all their attendant expenses of the nature to which we above alluded. Such firms might be encouraged by a rebate of local rates or income tax.

Mr. Butler further draws attention to one very important point in connection with architects' interests ; that is, that while individual societies may make representation, and academic protests may be launched, they are useless because they do not and cannot claim to represent the full body of professional opinion.

A federation representing all architectural practitioners, and perhaps, for special use, allied with general bodies representative of the whole building and engineering world, would be very powerful, and its protests would at least be certain of receiving a hearing, which is more than can be said of the efforts of individual societies.—*The Irish Builder*.

It is not surprising that the double decision of the Government to subsidise the building of houses by private enterprise and to place an embargo on so-called luxury building should have resulted in criticism both from the building trade and from architects ? The opinion is widely held that one of the chief causes of the present high cost of building arises from the restrictions necessarily placed by the Government on ordinary building operations during the war, and there is a corresponding feeling that the wisest policy in existing circumstances lies not in the imposition of further restrictions, but in the removal of those that are already in operation. In this connection our attention has been called to an open letter which has been addressed to members of the House of Commons by the Council of The Society of Architects. That body is of opinion that the best interests of the country in the present housing crisis would be secured by allowing a free market both in labour and materials—in other words, by a return to pre-war conditions. There can be no doubt that from the trade point of view the proposed subsidy is in effect a penalising of one section of the building industry to the advantage of another. This, of course, can only be justified on the ground of urgent public necessity, and the mere fact that such a proposal is made affords some measure of the degree to which the original Government housing scheme has failed.—*The Surveyor.*

Members, Graduates, and Students of The Society of Architects who served in H.M. Forces during the War, 1914-1918.

Revised to 31st October, 1919.

Abbott, A. L.	Major, R.E. (*M.C., Belgian Croix de Guerre*).
Adams, W. H.	Lieut., R.E. (T.).
Allerton, E. C.	2nd Lieut., R.E.
Anderson, H. C.	C.-Q.-M.-S., R.A.S.C.
Andrew, B. C.	Lieut., R.H.A. (T.).
Ash, Sidney	Lieut., R.E.
Ashworth, A. S.	Lieut., R.G.A.
Aston, A. E.	S.-Sergt., R.E.
Atkinson, A. S.	
Atkinson, F.	L/A.C., R.A.F.

Baker, C. H.	Lieut., R.E.
Baker, F.	L/A.C., R.A.F.
Barker, F. W. C.	Lieut., R.G.A.
Barker, H. W.	Major, 6th W. Yorks (*T.D.*)
Barker, T. C.	Yorks Regt. (*Accidentally killed*).
Barks, E. E.	Lieut., R.E. (I.W.T.).
Bartlett, P. J.	Leading Seaman, R.N.V.R. (A.A. Corps).
Beazley, T. F.	2nd Lieut., King's Own (Royal Lancs).
Bell, M. J.	2nd Lieut., The Queen's (R.W. Surrey).
Benwell, W. R.	A.C.2, R.A.F.
Bevir, John	Royal Navy.
Binks, H. P.	Inns of Court O.T.C.
Blacking, W. H. R.	Captain.
Blackman, J. W. B.	Lieut., Can. Rly. Constrn. Corps.
Blackmore, A. C.	Captain, R.A.F. (*M.B.E., Mentioned*).
Bloomfield, W. S. R.	Captain, R.A.F.
Boddy, P. C.	Lieut., 41st Dogras (I.A.).
Bolton, A.	Lieut., R.A.F.
Bolton, C. W. B.	Captain, R.E.
Bourne, W. A. R.	Major, R.E. (*M.C.*).
Bowden, J. A.	Sapper, R.E.
Bowhill, F. J.	R.N.V.R.
Bradley, W.	Lieut., Chinese Labour Coy., Labour Corps.
Bray, J. S.	Captain, R.E.
Brewer, F. W.	Lieut., R.E.
Bryan, G. A.	R.A.F.
Burr, F. M.	Lieut., R.A.F.
Butt, D. H.	L/Corpl., R.A.O.C.
Button, C.	2nd Lieut., R.E.

Cabuche, H. L.	Captain, 13th London Regt. (*O.B.E.*).
Campkin, D. J.	28th London (Artists).
Carder, W. J. T.	Captain, 5th Devons.
Carey, J.	L/Corpl., London Scottish. (*Killed*).
Castle, S. E.	2nd Lieut., R.A.F.
Cavanagh, L.	12th London Regt.
Chadwick, J.	Major, Oxford and Bucks Light Infantry
Chaikin, B.	Captain, R.A.M.C.
Chambers, J. F.	Sergt., R.E.
Chesterton, F. S.	Lieut., R.F.A. (*Killed*).
Chignell, J. G.	Lieut., Canadian Engineers.
Chilton, E. A.	Sergt., R.A.M.C. (*Mentioned*).
Christie, J. A. C.	Captain, Rhodesian Defence Force.
Clack, J.	2nd Lieut., R.E.
Clark, H. S.	Sergt., R.A.S.C.
Clark, T. W.	R.A.M.C.
Clarke, J. D.	Captain, R.A.F.
Clarke, P. J.	R.E.
Clayton, A.	Captain, R.A.F.
Clayton, H.	Captain, South Notts Hussars.
Clegg, G. B.	R.E.
Clemes, F.	Lieut., 1/7th Lancs. Fusiliers.
Coad, P. A.	R.A.F.
Cogswell, A. E.	Lieut.-Colonel, R.F.A.
Collins, H. R.	Lieut., R.F.A.
Connal, H. J.	Corpl., R.G.A.
Cooke, S. N.	Lieut., R.A.F.
Cornelius, A. J.	Sapper, R.E.
Cornell, W. A.	Hong Kong Defence Corps.
Cornford, F. J.	2nd Lieut., R.G.A.
Cotterell, E. L.	R.E.
Cowley, H. R.	Captain, R.E.
Cox, A. S.	Lieut., R.A.F.
Crickmay, G. H.	Captain, R.E.
Cromie, R.	Hon. Lieut., R.E. Services.
Crosby, J. P.	R.A.S.C.
Curram, E. S.	R.E.

Dartnell, J. A.	Lieut., R.E.
Davidson, T. G.	Major, 22nd Durham Light Infantry.
Davies, A. H.	Major, R.F.A.
Davies, B. P.	2nd Lieut., R.E.
Davies, D. C.	R.A.S.C. (Remounts).
Davies, E. B.	Lieut., R.E.
Davies, R. C.	Major, R.E. (*Killed*).
Davies, W. G.	Sapper, R.E.
Davis, H. S.	Major, R.E. (*M.C., Mentioned*).
Davson, P. M.	Captain, R.A.F.
Dickinson, A. H.	Lieut., R.E.
Dingwall, W.	
Donelly, C. O'C. (Ret. M.)	Captain, Canadian Contingent.

Donnelly, R.	Lieut., R.E.
Douglas, J. Wightman	Major, R.E. (*D.S.O., Order of the White Eagle, Serbia*).
Dowdeswell, W.	Captain, 5th Welsh Regt.
Dowsett, S. C.	South African Vet. Corps.
Dungay, A. H.	Captain, R.A.F.
Durnford, A. H.	R.E.
Easton, A.	Lieut.-Colonel, 3/4th East Yorks Regt. (*T.D.*).
Ellis, T. M.	2nd Lieut., R.E.
Ellison, A. J. T.	A.A. Corps.
Emery, B. J.	Lieut., R.E. (*Killed*).
English, J. W.	2nd Lieut., R.E.
Evans, G. Ll.	Captain, 5th Essex Regt. (*T.D.*).
Evans, T. J.	Corpl., R.E.
Farrow, J. W. H.	Corpl., South African Infantry.
Fincher, P. R.	Lieut., R.A.M.C. (*Mentioned*).
Firth, J. P.	Major, 1/4th K.O.Y.L.I.
Fogg, T. H.	Captain, R.E. (*Killed*).
Ford, C.	2/7th Devons.
Foster, W. F.	Lieut., R.N.V.R.
Fowler, E. G.	Captain, R.A.S.C.
Frazer, L.	Major, Hants Regt.
Fry, P. G.	Brevet-Lieut.-Colonel, R.E. (*C.M.G.,D.S.O., Four Mentions*).
Fyvie, J. D.	Captain (Staff).
Garrett, A. J. W.	Sergt., 1st K.E. Horse.
Geake, H.	Captain, R.E.
George, Rev. G. J.	Captain, Nyassaland Field Force.
Gibbs, C. L.	Canadian Forces.
Gill, H. P.	Lieut.
Gorst, F. H.	Lieut., Royal Defence Corps.
Gott, J. H.	Lancs. Fusiliers. (*D.C.M.*).
Goulburn, H.	Captain, R.F.A.
Gower, L. R.	Corpl., Welsh Regt.
Graham, H. I.	Lieut., R.E.
Greatorex, A. D.	Lieut., Royal Defence Corps.
Green, B. W.	Lieut., 11th Hussars.
Greenfield, T.	Lieut., R.E.
Grist, V. H.	R.E.
Hack, W. P.	2nd Lieut., 11th Lincolns.
Hadley, W. J.	Lieut., S.W. Borderers.
Hall, S. A.	Lieut., Divisional Cyclist Coy.
Harbottle, E. J.	Major, R.F.A.
Harrison, T.	2nd Lieut., 12th London Regt.
Haslam, J.	Lieut., 12th London Regt. (*Killed*).
Hatchard, O. B.	Lieut., R.A.F.

Hay, Chas.	Lieut., 103rd Canadian Regt.
Haymes, R. E.	Lieut., 1st Herefordshire Regt.
Hayman, R. V.	Lieut., R.E. (*Mentioned*).
Haynes, F. S.	L.R.B.
Hayward, A. B.	Captain, M.G.C.
Hearne, Frank	
Heathcote, C. H.	Major, Sherwood Foresters.
Heathcote, Edgar,	Major, 6th Sherwood Foresters.
Heaton, R. A.	Lieut., 14th Manchester Regt.
Hedley, G. M.	Captain, R. E. (*M.C., Order of the Crown, Italy, Killed*).
Higgins, C. J.	Colonel, R.F.A.
Higson, H. W.	Sapper, R.E.
Hill, E. F.	Lieut., Berkshire Yeomanry.
Hillier, H. W.	Seaman, R.N.V.R.
Hitchins, W. W.	Lieut., R.E.
Hoffman, C.	2nd Lieut., R.E.
Holding, E. de Wilde	Lieut., M.G.C.
Holmes, A. H.	Lieut., R.E.
Holtom, E. G.	Lieut., 13th Lancs. Fusiliers.
Hope, P. M.	Brevet-Major, 4th Border Regt. (*O.B.E., Two Mentions*).
Hopkins, P. A.	Lieut.-Colonel, Worcester Regt. (*O.B.E.*)
Horne, D. E. A.	Lieut., R.E.
Howden, R.	Lieut., South African Engineers.
Howorth, F.	R.A.S.C.
Hunter, J. D.	Lieut., R.G.A.
Hunter, M.	Lieut.-Colonel, Sherwood Foresters. (*V.D.*)
Hurst, G. T.	L.-Col., Natal Mounted Rifles.
Hutchings, R. H.	Captain, R.E.
Huxley, W. S.	2nd Lieut., R. Fusiliers.
Hyde, R. R. W.	2nd Lieut., R.E.
Imrie, G. Blair	Captain, R.E.
Ingleton, D. F.	Captain, R.F.A. (*M.C., Mentioned*).
Inglis, T. Stewart	Major, R.F.A. (*D.S.O.*).
Isaac, W. J.	Lieut., R.E.
Jack, G. H.	Lieut., R.I.F.
Jack, Guy W.	2nd Lieut., R.E.
Jackson, G. W.	Captain, Gordon Highlanders.
Jackson, H.	R.E.
Jane, W.	Major, R.E. (*Died of Wounds*).
Jarvis, W. H.	2nd Lieut., The Queen's (R.W. Surrey Regt).
Jenkins, T. P.	Captain, R.A.F.
Johnson, A. B.	R.E.
Johnson, A. H.	Lieut., R.G.A.
Johnson, J. G.	Lieut., Canadian Highlanders.
Johnson, T. F.	2nd Lieut., R.F.A.
Johnson, W. H.	Sapper, R.E.
Jones, D. P.	R.A.M.C.

Jones, E. D.	Captain, R.A.M.C.
Jones, F. H.	Lieut., R.E.
Jones, J. Herbert	2nd Lieut., R.A.F.
Jory, E. B.	Captain, R.E. (*M.C.*).
Joslin, G. A.	Lieut., R.F.A.

Keay, L. H.	Captain, R.E.
Keefe, R. C.	Lieut., Connaught Rangers.
Keighley, H. F.	R.A.S.C.
Kelly, W. E.	Lieut., R.N.V.R. (*Mentioned*).
Kemp, W. J.	2nd Lieut., London Regt.
King, F. C.	2nd Lieut., R. Irish Rifles. (*Killed*).
King, G. G.	2nd Lieut., Tank Corps.
King, W.	R.E.
Kohler, H.	(*Killed*).

Lang, A. L.	L/Corpl., R.E.
Law, C. O.	Captain, R.E. (*Accidentally Killed*).
Le Grove, W.	2nd Lieut., R.E. (*Killed*).
Leest, E. M.	Captain, 5th Devonshire Regt.
Liddle, E. F. W.	Sergt., R.A.M.C.
Lillie, A. C. M.	Sergt., K.O.Y.L.I.
Lines, R. W.	Lieut., Canadian Infantry. (*Killed*).
Ling, R. B.	L/Corpl., R.A.M.C.
Lister, A. H.	2nd Lieut., R.G.A.
Lockton, H.W.	Captain, R.E.
Lovell, J. P.	19th R. Fusiliers (Public Schools Battn.).
Lowbridge, G. C.	Major, R.E. (*M.C.*).
Lund, J. E.	R.G.A.
Lurcock, H. J.	2nd Lieut., West Yorks Regt.
Lyne, D. R.	Lieut., R.E. (*M.C.*).

Machattie, J. M.	Piper, London Scottish.
Maitland, A. G.	Lieut., Cameronians.
Mander, A. E.	Sergt., R.E.
Mann, W. R. B.	L/Corpl., R.E.
Marles, C. Wright	Lieut., R.E.
Matthews, F. J.	R.A.F.
May, W. H.	Captain, 7th Devon Regt.
McCorquodale, G. M.	Lieut., 12th Loyal North Lancs. Regt.
McClure S.	Sergt., R.A.M.C. (*Mentioned*).
McDonald, J. S.	Captain, A. & S. Highlanders.
McDonnell, A. J.	R.A.M.C.
McDougall, A. G.	L/Corpl., 8th R. Berks Regt.
McKilliam, J. N. K.	2nd Lieut., 1st Wilts & Dorset Regt.
Medcalf, T. B.	2nd Lieut., 4th Loyal North Lancs. Regt.
Mendham, B. J.	Captain, R.A.F.
Mettham, J. A.	Captain, R.E. (*Died on Service*).
Miller, C. W.	2nd Lieut., R.E.
Mitchell, C. T.	South African Cyclists.

Monson, H. C. H.	Sergt., L.R.B.
Moore, James	Lieut., R.E.
Moss, D. J.	R.N.V.R.
Myers, J.	East African Mounted Rifles.
Newcombe, P. C.	Captain, Durham Light Infantry.
Newman, C. J.	2nd Lieut., King's Liverpool Regt.
Newman, R. J. W.	Sergt., R.A.M.C.
Newson, C.	Writer, R.N.
Newton, G.	Lieut., R.A.F. (A.C.C.).
Norman, C. F.	2nd Lieut., R.E.
Norman, E. J.	2nd Lieut., R.E. (*Killed.*)
Nurse, Harry	Lieut., R.F.A. (*M.C.*).
Oldfield, G. H. R.	2nd Lieut., R.E. (*M.C.*).
Oliver, F. G.	2nd Lieut., Northumberland Fusiliers.
Oliver, H.	Major, 6th Essex Regt.
Overbury, T.	Major, Graves Registration Unit. (*Mentioned*)
Pace, C. L.	12th London Regt.
Page, B. C.	Major, R.E.
Parker, A. T.	2nd Lieut., R.E.
Parker, A. L.	Major, R.E.
Pascoe, H.	Yorks & Lancs. Regt.
Pearson, E. W.	Lieut., R.E.
Penty, F. T.	
Perry, R. T.	Canadian A.S.C.
Peters, K.	R.E. (*Killed*).
Phillips, R. S.	Lieut., R.E.
Pickering, J.	R.E.
Picton, C. J.	Lieut., 6th Welsh Regt.
Piercy, A. R. P.	2nd Lieut., R.G.A.
Platts, P. O.	Lieut., South Lancs. Regt.
Pollard, E. A.	Major, 5th West Yorks. Regt.
Potts, J.	Lieut., 17th Northumberland Fusiliers.
Poynter, Sir A., Bart.	Lieut., R.N.V.R.
Price, T. G.	R.A.F.
Price, T. J. B.	W.O.2, Royal Marine Engineers.
Priest, F. R.	R.A.F.
Procter, E.	Major, R.E.
Pulford, W. J.	Captain, R.A.S.C.
Purvis, F. J.	Lieut., A.I.F.
Radford, T. R.	R.E.
Randell, A. J.	Major, Wilts. Regt. (*V.D.*).
Reynolds, L. A.	Lieut., R.F.A.
Richardson, J. B.	2nd Lieut., R.E.
Richley, N.	L/Corpl., R.E.
Ridge, T.	Lieut., R.E.
Roberts, F. A.	Lieut., R.A.F.
Roberts, G. A.	Major, A.I.F.

ROBERTS, J. W.	O.T.C.
ROBERTSON, J. D.	Captain, R.E.
ROBINSON, W. H.	Major, Kent Cyclist Battn.
ROSE, E.	Corpl., South African Infantry.
ROWLAND, H. E.	Lieut., R.E.
RUDMAN, W.	2nd Lieut., Wiltshire Regt.
RUSSELL, A. C.	Corpl., R.E.
RUSSELL, G. H.	L.R.B.
RUTTER, C. D.	Lieut., R.E. (D.O.R.E.).
RYAN, B. J.	Major, R.E. (*M.C., Order of the Crown of Italy*).
SAINSBURY, F. G.	Major, R.E. (*Mentioned*).
SAMPLE, E. F. R.	Lieut., R.E.
SCALES, S. G.	Labour Corps.
SCHUMM, W. E.	Sergt., Middlesex Regt.
SCOTT, A. I.	C.-S.-M., 7th Rifle Brigade.
SEELS, G. M.	Lieut., R.E.
SHAFT, J. W.	A.C.2., R.A.F.
SHERLOCK, E. D.	R.N.D. (Medical Division).
SHERWOOD, H. E.	
SHRIMPTON, S. N.	Captain, R.E.
SIMPSON, I. A.	R.E.
SKIPPER, C. F.	Major, attached Canadian A.M.C. (*Chevalier de la Légion d' Honneur*).
SLATER, J.	Sapper, R.E.
SMITH, I. G.	Lieut., R.E.
SMITH, S. R.	Staff-Sergt., R.E.
SOLON, P. H.	2nd Lieut., R.E.
SPENCER, T.	Lieut., R.A.F.
SPINK, H.	Lieut., R.N.V.R.
SPRATT, N. C.	Captain, R.A.F.
STEEL, W. R.	C.-S.-M., R.E.
STEWART, A. D.	Lieut., Royal Scots.
STEWART, ALAN J.	Lieut., Royal Scots.
STONHAM, P. D.	Lieut., R.A.F.
STORY, P. F.	Lieut.-Colonel, C.R.E. (*D.S.O. and Bar. Chevalier de la Légion d' Honneur. Four Mentions*).
STREATFIELD, G. E. S.	Major, R.E. (*D.S.O., O.B.E. Four Mentions*).
STUTTLE, B. W.	R.E.
SULLIVAN, L. SYLVESTER	Major, Labour Corps.
SUTHERLAND, G. A.	Captain, 3rd Seaforths. (*Killed*).
SWANSTON, J. D.	Black Watch.
SYMS, R. H.	Major, R.E.
TANNER, D. G.	Lieut., R.E.
TAYLOR, F. J.	Captain, R.A. (*M.C.*).
TAYLOR, F. P.	Lieut., M.G.C.

Taylor, J. J.	Lieut., R.E.
Taylor, T. E.	R.A.F.
Thomas, C. S.	Captain, The Welsh Regt.
Thomas, D. J.	R.A.F. 3/A.M.
Thomas, R. W.	Captain, R.E.
Thorpe, O. M.	L/A.C., R.A.F.
Thurston, S. W.	2nd Lieut., R.E.
Toomer, A. J.	Major, R.A.F. (A.C.C.)
Trimm, C. A.	Lieut., R.F.A. (*M.C.*).
Tranmer, F.	Lieut., R.G.A.
Tufnail, H. P.	Major, O.C. Ambulance Unit. (*M.B.E., Mentioned*).
Twist, W. Norman	Lieut., Worcester Regt.
Veale, L. C.	L/A.C., R.A.F.
Verral, E. B.	
Walton, W. B.	Captain, R.A.F.
Wapshot, F. E.	Civil Service Rifles.
Warren, G.	2nd Lieut., R.E.
Waterworth, J. H.	
Wenyon, G. H.	Lieut., 16th Cameronians.
White, E. F.	Lieut., R.A.M.C.
Whitwell, E.	Lieut., R.A.F.
Wilkins, V.	Captain, R.E.
Wilkinson, H. A.	Lieut., Northumberland Fusiliers.
Wilkinson, S.	Lieut., R.A.F.
Williams, E. J.	Captain, 3rd Leicester Regt. (*Mentioned*).
Williams, J. M.	Staff-Sergt., R.A.O.C.
Williams, W. H.	Gunner, M.G.C.
Wills, J. Ross	Lieut., Labour Corps.
Wilson, F. C.	Captain, R.E.
Winn, L.	C.-Q.-M.-S., R.E.
Winch, A.	L/Corpl., West Yorks. Regt. (*Killed*).
Wright, W. O.	Major, 5th King's Own. (*D.S.O. Croix de Guerre. Three Mentions*).

Graduates.

Juniper, F.	R.E.
Langford, B.	Westminster Dragoons. (*Killed*).
Millen, D.	2nd Lieut., R.E.
Rees, F. W.	Captain, R.E.
Shibley, A. R.	Middlesex Regt.
Stafford, A. J.	R.A.S.C.
Stobbart, F. R.	Lieut., R.G.A.
Thompson, H. W.	Welsh Regt.
Winn, T. J. R.	30th R. Fusiliers.

Students.

Adams, R. E.	Sergt., R.A.F.
Ash, G. D.	Corpl., R.E.
Baguley, H.	Corpl., R.A.S.C.
Barry, D. H. H.	Sergt.-Major, 18th London Regt.
Batley, J. G.	Corpl., R.A.F.
Baxter, A. C.	R.A.M.C. (*Killed*).
Beach, T. S.	Lieut., R.E. (*Mentioned*).
Bickerton, W. C.	Sapper, R.E.
Bowring, J. V.	Trooper, Essex Yeomanry.
Bradford, S.	Lieut., Northumberland Fusiliers. (*M.C.*).
Brady, A.	Sapper, R.E.
Brewer, E. M.	Gunner, R.G.A.
Brooke, W.	R.A.S.C.
Burden, C. E.	K.R.R.C. (*Killed*).
Cable, C. J.	R.A.F.
Clack, J.	2nd Lieut., R.E.
Clutterbuck, J. S.	Captain, K.R.R.C.
Collins, S. H.	2nd Lieut., 3/4th Yorks. Regt.
Coombs, D. W.	2nd Lieut., R.E.
Corrie, D. B.	2nd Lieut., Bedford Regt.
Coupland, W. V.	R.A.S.C.
Cropper, J. W.	W/T. Operator, R.N.
Davies, E.	2nd Lieut., Welsh Regt.
Dening, S. J. C.	Lieut., XIII. Pioneers (I.A.).
Dury, A. B.	L.R.B.
Evans, D.	2nd Lieut., R.E. (*Killed*).
Evans, H. L.	Pembroke Yeomanry.
Fletcher, G.	Sapper, R.E.
Fraser, Bright	Artists Rifles.
Fulton, R. M.	
Fyvie, H.	Captain, Gordon Highlanders.
George, A. S.	Corpl., R.A.O.C.
George, J. H.	Corpl., R.A.M.C.
Gillespie, J. G.	2nd Lieut., 17th London Regt.
Gomm, J.	C.-Q.-M.-S., R.E.
Gray, D. R.	Lieut., 12th Worcester Regt.
Griffiths, W.	Sapper, R.E.
Grimmond, H. G.	Signaller, R.E.
Haigh, W. M. N.	L/Corpl., 2/5th Leicester Regt.
Haslam, F. C.	Uganda Volunteer Reserve.
Hayward, E. F.	R.E.
Heaven, Frank H.	Corpl., R.E.

Hill, W. S.	Lieut., D.C.L.I. (*Killed*).
Holroyd, W.	Bombardier, R.A.
Holt, F.	19th King's Liverpool Regt.
Howells, D. J.	Lieut., R.F.A.
Hudson, C. H.	2nd Lieut., King's Liverpool Regt. (*Killed*)
Hunt, Stanley	Lieut., 5th Durham L.I.
Jeffery, C. A.	4th Devon Regt.
Jones, N. W.	2nd Lieut., R.E.
Keeble, P. T.	Sergt., A.V.C.
Kirby, E.	R.A.S.C.
Lawton, W.	R.A.S.C.
Lock, J. M. B.	2nd Lieut., 5th Middlesex Regt.
Low, H. C.	16th Middlesex Regt.
Lowe, J. W.	C.-P.-O., R.N.R.
Marley, W. H.	Corpl., R.F.A. (*Killed*).
Marshall, S. J.	2nd Lieut., Hussars. (*Killed*).
Millar, T.	
Miller, W. A.	Q.-M.-S., R.E.
Moore, A. E.	Corpl., R.E.
Mowbray, C.	R.E.
Munckton, C. V. A.	Staff Captain, Indian Mtd. Brigade (Skinner's Horse). (I.A.).
Oates, A.	Sapper, Tyne Electrical Engineers.
Overy, C. F.	Lieut., R.A.F.
Owens, J. P.	Lieut., East Yorks. Regt.
Parkin, W. G.	22nd R. Fusiliers.
Parr, D. J.	South African M.M.G.
Pickup, J.	Lieut., 2/5th Loyal North Lancs.
Pinfold, S.	R.A.F.
Rebbeck, W. H.	2nd Lieut., R.E. (*M.C.*, *Killed*).
Richardson, R. H.	2nd Lieut., R.A.F. (*Killed*).
Roberts, C. H.	
Sanders, J. E.	Lancashire Hussars.
Sayers, A. D.	Corpl., R.E.
Scott, T.	(*Killed*).
Smith, T. H.	R.E.
Soulby, A. C.	
Stafford, J. E.	Lieut., Durham L.I.
Tapping, F.	
Thomas, D. W.	H.A.C.
Thurston, S. W.	Lieut., R.E.
Timmins, E.	Hussars. (*Killed*).

TIPLER, P. H.	R.A.S.C.
TURNER, T. E.	2nd Lieut., 12th London Regt. (*Killed*).
URWIN, S. E.	R.A.M.C.
VAN DER SCHYFF, R. C.	Staff-Sergt., Union Defence Force, S.A.
WAITE, C. L.	R.A.F.
WHITAKER, J.	Lieut., R.F.A.
WILLIAMS, P. J.	L/Corpl., 11th Welsh Regt.
WILLMOTT, C. S.	Captain, R.A.F.
YOUNG, A. E.	Lieut., R. W. Kent Regt. (*Killed*).

Summary.

	Total Serving.	Total Killed.
MEMBERS	348	19
GRADUATES	9	1
STUDENTS	93	13
TOTAL	450	33

Honours and Awards.

C.M.G.	1
BAR TO D.S.O.	1
D.S.O.	6
O.B.E. (MILITARY)	3
M.C.	14
M.B.E. (MILITARY)	2
D.C.M.	1
TERRITORIAL DECORATION	3
VOLUNTEER DECORATION	2
LEGION D'HONNEUR (FRANCE)—CHEVALIER	2
CROIX DE GUERRE	1
CROIX DE GUERRE (BELGIUM)	1
ORDER OF THE CROWN (ITALY)	2
ORDER OF THE WHITE EAGLE (SERBIA)	1
MENTIONS IN DESPATCHES	26
TOTAL NUMBER OF HONOURS AND AWARDS FOR MILITARY SERVICE BESTOWED ON MEMBERS OF THE SOCIETY	66

Civil Honours.

BARONETCY AND OFFICIER DE LA LEGION D'HONNEUR	RIDDELL, SIR G. (Hon. Member).
KNIGHTHOOD AND O.B.E. (CIVIL DIVISION)	RUTHEN, C. T.
O.B.E. (CIVIL DIVISION)	CHIDGEY, H. T. A.
M.B.E. (CIVIL DIVISION)	ROGERS, F. CARSTAIRS. REES, J. COOK. TUFNAIL, H. P.

Notes from the Minutes.

At a Meeting of the Council, held on December 18th, it was announced that it was hoped that during the Session, papers would be read on Building Economics, Timber, Professional Education Over-Seas and other subjects. The speakers and lecturers would include Sir Charles T. Ruthen, Sir Ambrose Poynter, Professor Groom, and some technical experts representing the Gas and Electrical industries. Mr. Percy B. Tubbs was appointed Chairman of the Art and Literature Committee and Sir Charles T. Ruthen was appointed Chairman of the Finance Committee. The Balance Sheet for the past financial year, which showed an increase in the total surplus of assets over liabilities, was passed for consideration at the Annual General Meeting in January. Progress with the Victory Scholarship fund was reported.

It was stated that the extension of the Society's premises for the Atelier was nearing completion, and an interesting announcement was made relating to the federation of the London Ateliers under the control of the Royal Academy, and the standardisation and regularisation of the fees and programmes of each Atelier under the direction of their respective Patrons.

In regard to the Society's proposal for the formation of a Federated Council of the architectural bodies which had been before the Architects' War Committee, it was reported that a recommendation had been made by that body that the R.I.B.A., the Society and the Architectural Association should call a meeting of their representatives on that Committee to consider the matter. The R.I.B.A. had intimated to the Society that as they were already dealing with the question of professional unity they did not propose to adopt the recommendation, and the Council decided not to press it further.

The present position of the National Housing Scheme was discussed together with the question of taking further action in regard to the Housing (Additional Powers) Bill. It was decided to make representations to the Government in regard to the constitution of the proposed tribunal of appeal to be set up under Clause 6 relating to "Luxury Building." At the invitation of a leading newspaper it was decided to contribute an article giving the Society's views on the Housing question.

An address of congratulation on the conclusion of Peace had been submitted for the acceptance of their Majesties the King and Queen.

It was stated that Viscount Astor had accepted the Society's invitation to Luncheon at the Trocadero Restaurant, on January 8th, and it was hoped that he would be accompanied by Lady Astor, M.P.

Attention was drawn to the proposals of the Institution of Civil Engineers for the Statutory Registration of members of that profession and it was decided to give the Institution every support in attaining its object. A resolution in favour of the Statutory Registration of Architects and calling for joint action by theR.I.B.A. and the Society was received from the Nottingham and Derby Architectural Society.

The report of the Society's delegates to the Industrial Council of the Building Industry, held at York, was received, showing that the proposal for representation on that Council of the professional bodies connected with the building industry had been accepted and that the Society would be represented on that body.

The report of the Examination Committee showed that five of the candidates who took the special War Examination at Cologne, during October, had satisfied the Examiners. It was stated that several new appointments had been made on the Board of Examiners, and that the Graduateship Examination would be discontinued, as that class would cease to exist when the grading of the Membership comes into force.

Local Honorary Secretaries in various districts were appointed, the list consideraby extended at home and over-seas, and arrangements made for a further extension of the Society's work through their agencies.

An invitation from the Council of the R.I.B.A. to send representatives to an informal conference on the Unity of the Profession was accepted.

A request from the Institution of Heating and Ventilating Engineers for the co-operation of the Society in regard to research was acceded to in principle and referred to a special Sub-Committee for consideration and report.

Mr. George Baines was appointed Honorary Auditor for the ensuing year.

The Annual Report of the Society's South African Branch was received, showing that the Branch was in a sound financial position and continuing its very active and effecient work on behalf of the Society and the profession in South Africa.

The Society's draft Annual Report was adopted for presentation at the Annual General Meeting in January.

An invitation from the Royal Sanitary Institute to the Society to send delegates to the Birmingham Congress in July, 1920 was accepted, and a communication from the American Institute of Architects, reporting progress in an enquiry into certain aspects of professional practice in which the Society is co-operating, was referred to the Committee dealing with this subject.

The publicity report for the past month was received, showing the manner and extent in which the Society's aims and objects were constantly kept before the public and the profession in the press and in other ways.

It was reported that, on the invitation of the British Forestry Association, the Society has been represented at a recent Conference on Timber held at the Surveyors' Institution.

A communication from the Ministry of Labour asking the Society's advice on the training of ex-Service men as architects and on the question of grants was referred to a Committee.

On the report of the Society's representative on the Building Industries Consultative Board, it was decided to urge that the utility of that organisation would be greatly enhanced by its being given executive powers.

At the ensuing Ordinary Meeting in the evening, the nominations of 43 candidates for Membership were announced and 24 new Members were elected. The routine business was followed by a paper, illustrated by lantern slides, on the "Need for More Care in Warehouse Design," by Professor Adams, Member of Council, which was followed by an interesting discussion.

Luncheon to Viscount Astor.

The Parliamentary Secretary of the Ministry of Health, Major the Right Honble. Viscount Astor and Lady Astor, M.P., will be the chief guests of the Society at a Luncheon to be held in the Balmoral Rooms of the Trocadero Restaurant, Piccadilly Circus, W., at 12.30 p.m., for 1 o'clock, on Thursday, January 8th, 1920.

The Chair will be occupied by the President, Mr. E. J. Sadgrove, who will be supported by representatives of kindred Societies and of Government Departments and other Public Bodies.

The gathering will be of great interest and will afford an opportunity of bringing to the notice of the representatives of the Ministry of Health the views of the Society on the Housing Question, and of the position of Architects in relation thereto.

Members may bring visitors, including ladies, and, as the accommodation is limited, application for tickets should be made to the Secretary at an early date Seats will be allotted in order of application.

Publicity.

Lady Housing Advisors.—A letter from the Secretary, commenting upon the decision of the Wigan Council to appoint lady housing advisors, appeared in the *Daily Chronicle*, on November 24th. It pointed out that the architectural profession is open to women with the necessary qualifications, and that the Society long ago opened its ranks to eligible women.

South African Branch.—A long report of the Annual Meeting of the South African Branch of the Society, and a leading article thereon, appeared in the Johannesburg *Star*, of October 29th and 30th.

Luxury Buildings.—A long letter from the Secretary dealing with the need for the abolition of Government control of the building industry, the peril of stopping so-called "luxury" building, and the futility of the £150 subsidy, appeared in the *Daily Telegraph, Morning Post, Pall Mall Gazette, Globe, Yorkshire Post, Scotsman, Western Daily Press, Midland Daily Telegraph, Daily Graphic, Westminster Gazette, Observer, Municipal Journal*, and twice in the *Daily News*. It also appeared in the professional journals, where it formed the subject of appreciative notices and articles. It was replied to in some of the daily papers, the correspondents agreeing with the Society's views.

This letter was followed up by a communication from the Council on similar lines, which was sent to every member of the House of Commons. This communication was commented upon in the *Daily Graphic, Morning Post, Yorkshire Post, Glasgow Evening Citizen, Liverpool Daily Courier*, and the professional journals.

Building Industries' Consultative Board.—A statement issued by this Board, on which the Society is represented, in favour of the removal of Government restriction on building, appeared in the *Western Evening Herald, Nottingham Journal, Staffordshire Sentinel* and *Yorkshire Observer*; it also appeared in the form of a letter signed by the President of the R.I.B.A., and the President of the London District Council of the Federation of Building Trades' Operatives, in the *Daily Telegraph*, of December 3rd.

Irish Housing Schemes.—Particulars of the action which the Society took with the Local Government Board in Ireland, which resulted in members of the Society being given equal standing with members of the R.I.B.A. and the R.I.A., Ireland, for inclusion in the Housing Panel set up by the Irish L.G.B., appeared in the *Scotsman, Irish Times, Irish Builder*, the leading Irish newspapers, and the professional journals, and drew a reply from the R.I.A., Ireland, which showed that they had not grasped the point at issue.

Engineering Entente.—A report of a meeting at the Royal Society of Arts, of representatives of various bodies interested in engineering, for the purpose of founding a British Section of the Societé des Ingénieurs Civils de France, appeared in the *Daily Telegraph* and other newspapers, stating that the Society was represented by its President.

Domestic Heating.—A long letter from the President of the Society, correcting the criticism of an anonymous writer upon his paper, read before the British Commercial Gas Association, appeared in the *Westminster Gazette*, of December 4th.

Quack Architects.—Arising out of proposals for amending the Dentists' Act, a long letter from the Secretary, appeared in the *Pall Mall Gazette*, of November 27th, pointing out the danger to the public of "quack" architects being employed, and urging that the only way in which the public can be protected is by an Act for the Statutory Registration of Architects.

R.I.B.A.—A letter from The Society, expressing sympathy with Mr. Simpson, the President, in his illness, appeared in the *Journal* of the R.I.B.A. of December 6th.

WOMEN ARCHITECTS.—In the *Vote* of December 12th there appeared an Editorial comment accusing Dr. Addison of not taking steps to verify his assertion that there were no women architects available for consultation by him, and pointing out that there are women Members of The Society of Architects.

In the *Globe* of December 13th there appeared a long article by Miss Annie Hall, one of the women Members of the Society, on "Building the Right Kind of House."

Both these articles were the result of enquiries made of the Society by the papers concerned in regard to women architects.

THE VALUE OF ARCHICTECTURE.—A letter under the above heading appeared in the *Times* of December 8th, in which the Secretary criticised the announcement that in connection with the proposed erection of a Sailors' Hostel at Limehouse, "No money shall be wasted on architectural decoration." This brought an appreciative personal letter from a layman and support in the columns of *The Practical Engineer*, a technical journal with advanced and progressive views on the subject of art as applied to industry.

PLEASE STATE TERMS.—A letter from the Secretary urging that the selection of architects for public appointments should be made on the basis of professional qualifications and not on fees appeared in the professional journals, and received support from them.

Utility and Ugliness.

Even the fact of having our "pockets full of money and our cellars full of beer" in the new Whitley Council-Lloyd-George-Winston Churchill reconstituted Britain which has been promised to us, will not be satisfactory if that Britain is to be made one atom less beautiful than it is. We hope to see no life without industry, but also no industry without art; for that, as Mr. Ruskin told us, is brutality. We should say that they both are brutality; but at the moment this is not the point. We have commented on the needless ugliness of many, if not most, engineering works. In engineering, to make a thing beautiful may be a little more difficult, but in architecture it should be easy. We are very glad to see in the *Times* the protest of Mr. McArthur Butler, Secretary of The Society of Architects, against the announcement "that there is to be no money wasted on architectural decoration" in the Sailors' Hostel at Limehouse, which is "to be built as a memorial from the women of the Empire worthy of the capital of the Empire." Mr. Butler says—and we are heartily with him:—"Even the skilful pencil of Mr. Raffles Davison cannot conceal the utilitarian character of the elevation of the building, and I suggest that money spent on architecture or architectural decoration is not necessarily wasted, and that a fair proportion of the money which is being invited from the public would be well spent in making the building a worthy memorial from the architectural as well as the utilitarian standpoint." The skyline of the building, taken as a whole, in the *Times* picture, seems to us to suggest the battered top of a half-demolished cathedral in Belgium or France. It is constantly broken by trumpery angles and ornaments and entirely lacking in dignity and grace.—*The Practical Engineer.*

Housing (Additional Powers) Bill.

THE FOLLOWING ARE THE "PROHIBITION CLAUSES" TO WHICH
THE SOCIETY TAKES EXCEPTION.

5.—(1) Where it appears to a local authority that the provision of dwelling accommodation within their area is or is likely to be delayed by a deficiency of labour or materials arising out of the employment of labour or material in the construction of any works or buildings, and that the construction of those works or buildings is in the circumstances of the case of less public importance than the provision of dwelling accommodation, the authority may by order prohibit for such time, and on such terms and subject to such conditions as the Minister may from time to time prescribe, and either in whole or in part, the construction of those works or buildings.

(2) Any person aggrieved by an order made by a local authority under this section may appeal to the Minister, and on any such appeal, the Minister shall have power either to annul the order or to make such order in the matter as the local authority could have made, and the decision of the Minister in the matter shall be final and not subject to appeal to or review by any court.

(3) If any person acts in contravention of or fails to comply with any of the provisions of an order made under this section he shall be liable on summary conviction to a fine not exceeding one hundred pounds, and if the offence is a continuing offence to a fine not exceeding fifty pounds for each day during which the offence continues, and where the person guilty of an offence under this section is a company every director and officer of the company shall be guilty of the like offence unless he proves that the act constituting the offence took place without his consent or connivance.

(4) In any action or proceedings for breach of a contract to construct any works or buildings, it shall be a good defence to the action or proceedings to prove that due fulfilment of the contract was rendered impossible by reason of an order having been made under this section.

(5) In this section the expression "construction of any works or buildings" includes the making of alterations or additions to existing works or buildings.

6.—If any person at any time after the third day of December, nineteen hundred and nineteen, without the permission in writing of the local authority within whose area the house is situate, demolishes or uses otherwise than as a dwelling-house any house which was at that date occupied as a dwelling-house, and which in the opinion of the local authority was reasonably fit or was reasonably capable of being made fit for human habitation, he shall be liable on summary conviction in respect of each house demolished or so used to a fine not exceeding one hundred pounds or to imprisonment for a term not exceeding three months or to both such imprisonment and fine.

An amendment to Clause 5, moved by Mr. Lorden, substituting a standing appeal tribunal of five persons for the Minister of Health to deal with the appeal of any person feeling aggrieved by any order made by a local authority in respect of the prohibition of building operations which interefered with the provision of dwelling-houses, was agreed to. The Society of Architects is making representations to the Government regarding the constitution of this Committee.

Mainly about Members.

A partnership has been entered into between MR. ALBERT SCHOFIELD, of Southport, and MR. F. MORRALL MADDOX, A.R.I.B.A., of Stoke-on-Trent, who as a Student won the Society's Travelling Studentship and Silver Medal in 1912. The firm have commenced practice under the style of Messrs. Schofield and Maddox, Architects, Queens Chambers, 379, Lord Street, Southport.

MR. H. J. LYON, of Dublin, has been placed on the Housing Panel of Architects, recognised by the Housing Committee of the L.G.D., Ireland, as qualified for employment under the Housing of the Working Classes (Ireland) Act, 1919.

Hammersmith was the first metropolitan borough to convert munition huts into dwellings as a temporary means of dealing with the housing problem in this part of London. the work being carried out by MR. R. HAMPTON CLUCAS, the borough engineer. In June last the council purchased the huts and material for £8,500, including gas mains, heating, lighting and other fittings. The actual cost of converting each hut into three residences averaged £400 per hut. The whole of the work of converting the huts was carried out by direct labour, under Mr. Hampton Clucas, and the tenants moved in within seven weeks of the start.

At a recent meeting of the Liverpool Architectural Society, SIR CHARLES RUTHEN, O.B.E., F.R.I.B.A., read a paper on "British House Building Methods," and said that a pre-war cottage of, say, £250 would now cost £800 or more, therefore a pre-war rent of 10s. had risen for the same accommodation to such a figure that, if the assessable value was to be based on the rent, and the rent on the building, it would amount to 35s. per week. He supposed it would not be incorrect to state that less than 250 houses had been completed since November 11th, 1918. He doubted whether the £150 subsidy would accomplish anything.

MR. H. WYNNE-JONES has been appointed by the Crown Agents for the Colonies as a temporary Architectural Assistant in the P.W.D., Ceylon. The introduction was given through the Society's Professional Appointments Register.

The designs submitted by MESSRS. DONNELLY, MOORE, KEEFE, and ROBINSON, Dublin, have been placed first by the Queenstown Urban District Council for their proposed housing scheme of 216 houses, and this firm has been appointed to carry out the scheme. The designs submitted by MESSRS. O'CALLAGHAN, WEBB, and JIRON, M.M.R.I.A.I., have been placed second; and designs by MR. W. S. KEATINGE, M.R.I.A.I., have been placed third. The President of the Royal Institute of Architects of Ireland (Mr. W. Kaye Parry, F.R.I.B.A.) acted as assessor.

Eighty-five designs were received in response to the invitation of the Parochial War Memorial Committee for designs and tenders for a monument of Portland stone, at a cost not exceeding £750, at Prestatyn. From these a short list was slected as follows : Mr. L. W. Barnard, F.R.I.B.A., Cheltenham ; Messrs. H. A. Clegg and Son, Chester ; Mr. F. A. Roberts, M.S.A. ; Mr. P. M. Andrews, A.R.I.B.A., Ealing and Messrs. J. Whitehead and Sons, London. The design of Mr. L. W. Barnard was finally selected.

The designs of Mr. W. B. STONEBRIDGE, were placed first in the Bedford Borough Housing Scheme Competition limited to local architects. There will be 400 houses on two sites and Mr. T. Spencer will be associated with Mr. Stonebridge in designing the houses for these schemes and for the Ampthill R. D. Council Housing Scheme.

Messrs. Daniel (m) and Arnold, was awarded the first premium of £100 in the competition recently held by the Leamington Spa Corporation. The design is representative of the spirit of sacrifice. On the side wings are registered, in bronze, the names of the fallen. The central ornamental feature in bronze is symbolic of the spirit of progression, the fruits and flowers of success, and the crown of victory. The monument is to be in Portland stone, with panels of names in bronze. The steps are to be in granite, and the paving in York stone. The core of the monument and its foundation will be in coarse concrete generally. The cost of the work is estimated at something over £5,000.

At the Roman Catholic Church, at Selby, there was recently unveiled and dedicated by the Lord Bishop of Leeds a beautiful war memorial pulpit which has been erected in St. Mary's Church, in the south-east corner of the Nave, near the Chapel of the Sacred Heart, from designs prepared by Messrs. Blenkinsopp and Scatchard, architects, of Selby. Of stone, its frontal panels are of artistic design —that on the centre bearing the figure of St. Michael; that on the left side, St. George; and on the right, Joan of Arc. There is some beautiful detail in the canopies, and the base of the pulpit is of marble columns, which form a striking contrast to the other portions.

The third premiated design for the Zeebrugge Memorial is the work of Mr. E. Frazer Tomlins, with whom is associated Mr. B. Clemens, the sculptor. Mr. Tomlins is a member of the First Atelier of Architecture, where he won several mentions. His design is illustrated in *The Builder* of December 19th.

The Executive Committee of the Architects' and Surveyors' Assistants' Professional Union has unanimously elected Mr. G. B. Tubbs to be an additional Honorary Assistant Secretary, in order to cope with the greatly increased work and membership of the Union.

Capt. H. W. Lockton, r.e., who has just been demobilized, and is resuming his professional practice at Newark, has received an intimation from Grand Lodge conferring upon him the honour of London Rank. Capt. Lockton is a Past Master of The Society of Architects Lodge of Freemasons, in which he holds the office of Organist, and is also P.G. Organist of the Province of Nottingham.

The building of the proposed Palace at Dharakota, South Madras, has been delayed owing to war conditions. The new building is to occupy the site of the existing Palace, which stands on a rocky plateau about 600 ft. above the plains, and is to be built in the local sandstone. English sanitary fittings and electric light are to be provided. The cost is estimated at two lakhs of rupees. The architect is Mr. Stephen Wilkinson, of Calcutta and London. An illustration of the scheme appeared in *The Building News* of December 12th.

Obituary.

The Society regrets having to report the loss by death of Mr. James Thompson (Member), of Alderley Edge.

Mr. Thompson, who was elected a Member in 1912, was articled to Messrs. Paley and Austin, of Lancaster, in 1874. Since 1893, Mr. Thompson had practised alone, but prior to that date he assisted the late Mr. J. S. Crowther in the restoration of Manchester Cathedral.

Most of Mr. Thompson's work was the designing and planning of houses and shops, of which he was responsible for a very large number, chiefly in and around the county of Cheshire.

The Building Industry and the National Housing Scheme.

The Building Industries Consultative Board, on which The Society of Architects is represented, has issued the following appeal to all Members of the British building industry :—

By a mighty national effort we have triumphed over the Central nations, who intended to ruin and reduce us and our Allies to a condition of impoverished slavery. Such a victory has, naturally, cost us a great price ; we have to count the loss of valuable lives and of millions of money. We have won the fight, as we determined to do, but we have taken heavy punishment.

It is not our intention to sit and lick our sores. We mean to consolidate the position we have gained and to hold it for good and all ; we will not allow it to be retaken by our enemies, nor will we be bounced out of it by neutrals, or even by our friends. But we cannot depend upon Government Departments to achieve this for us ; we must do it ourselves. It is up to every man in our industry to do his bit and help to make good the national losses.

It is clear that we must make a great united effort to win our share of the benefits of Peace, like that we made to win the War. With this end in view, we, five representatives of the Architects, five of the Surveyors, five of the Building Trades' Employers, and five of the Building Trades' Operatives, have been appointed to form a Building Industries Consultative Board. The duty is laid upon us to direct the energies of all in renewing healthy life and activity throughout our Industry.

First, we demand that the Industry shall be free from the control and interference of officials, and enjoy the full liberty to manage its own affairs, which it possessed before the War. The following Resolutions have therefore been sent to the proper authorities :—

> That in the opinion of this Board the stocks of bricks and other building material (in excess of actual Government requirements, which are the property of, or are controlled by the Government should be sold in the open market with a reasonable margin above cost to cover expenses.
>
> That in the opinion of this Board the Building Industry and its associated trades should now be and remain free of Government control or interference.

Next, we ask that every Member of the Industry shall put forth his whole strength, and push the rate of progress up to top speed. The more we produce, the cheaper the prices of all we have to buy; the more each puts into the common pool of output, the more each receives as his share. And we will use our influence to see that there is fair division.

There is no fear of unemployment. Apart from urgently needed houses, there are enormous arrears of building to make up ; even with most strenuous work it will be many years before we can reach normal conditions and cope with the constantly increasing building demands of commerce. Now is our opportunity ; if we neglect it, the trade of our country will pass from our hands to those of the keen rivals who are seeking it.

Despite our private troubles, the national position is excellent. Statistics show that we are already doing better than any European nation. The future is full of hope and promise. We have been forced to draw the sword against envious enemies, who threatened our national existence. It remains only to make " a strong pull, a long pull, and a pull all together " to secure the prosperity and comfort for which we have fought.

JOHN W. SIMPSON, President, R.I.B.A., *Chairman.*

J. P. LLOYD, President, the London District Council, National Federation of Building Trades' Operatives, *Vice-Chairman.*

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The Education of the Artisan.

Last Thursday Mr. Edwin J. Sadgrove, President of The Society of Architects, described British industry as suffering from creeping paralysis. The diagnosis may be correct, and since Viscount Astor was the guest of the Society on the occasion, Mr. Sadgrove could hardly in so many words ascribe this paralysis to its true causes, the mischievous doctrines and action of the Trades Unions and the weakness of the Government surrenders to them. He went as near to that as he could indirectly in his suggestion of "a revival of the old doctrine that every man be free to use as he chooses the talent with which his Maker has endowed him, and that the only limit to his reward shall be his ability to earn it." That is a direct denial of the Trades Union claims to restrict that freedom and to fix minimum wages irrespective of the ability to earn. But it must be evident to everyone that the practical revival of this old doctrine is impossible without the repeal of much mischievous class legislation and the suppression of intimidation and picketing, otherwise the doctrine is merely a pious opinion, and it would take a very courageous, powerful and disinterested Government even to attempt these reforms unless the demand for them came from the workers themselves. No one thinks that we have a Government that could be so described at present, apart from the fact that many of its members share the responsibility for the legislation they would be asked to repeal, so Mr. Sadgrove makes another suggestion to the Government, one which has at least the merit (in its eyes) that it would give it a further opportunity of spending others people's money. "He would suggest that the Government should now take in hand or support an educational propaganda, aided by their most powerful and valuable ally, the Press, so that they might get right home to the workers themselves. Whatever the cost of such propaganda might be, it would be money well spent if it changed the outlook of the operatives and brought prosperity to the country." There is great virtue in an "If." The cost of the propaganda would doubtless be great, the benefit exceedingly doubtful. The plan seems like a quack remedy for a disease when neither physician nor patient dare a drastic but effectual treatment. How, we ask, is this education of the artisan to be effected? There can be no compulsory attendance on lectures; pamphlets and leaflets have been tried already, chiefly by reconstructionists (who also look askance at real remedies), the Press is divided, and the artisan, like other people, mostly reads that with which he agrees—provided he read any beyond the sports columns. The great majority know and care nothing about economics, they leave that to their Trade Unions, whom they blindly obey even when they think them wrong. Nor are they singular in that: it was an educated man who foolishly labelled Political Economy "the dismal science." The minority have an economic of their own, founded on the writings of Henry George, Karl Marx, or some other Socialist author in which they believe with religious fervour. Trained almost from infancy in these fallacies, is it likely that a lecture or a leaflet will convert them? But whether or no a socialist in theory, in practice the British workman is intensely individualist. His ideal is to get the highest possible wage with the least possible trouble. Even if he be energetic and likes his job, he knows that (except on piece-work, which his union discourages) he will get no more wage for working rapidly and well, but he will be looking out for trouble. He will be unpopular with his fellows, perhaps fined by his union for exceeding the prescribed rate. In short, his environment is against him, and he thinks it better to swim with the stream. The non-unionist always has an unhappy time of it unless he can get into a shop altogether non-unionist. Supposing that by papers, pamphlets, lectures, and, perhaps best of all individual conversation and argument the workman were persuaded that the future of the nation, including himself, would best be assured by large production and economy in costs, it is doubtful whether it would make any difference in his practice. He would argue that the effort must be general to have any effect, and that he was not going to quarrel with his union or to take a smaller wage for a possible remote advantage. He would go with the rest and take the consequences, hoping things would last all right for his time. The most he would do would be to cast his vote against a strike of which he disapproved. Hence we have small hope of education as the remedy for our present distresses; the less that the prescription is not exactly new. It is more than fifty years since Robert Lowe, aghast at the extension of the franchise, declared "Now we must educate our masters." A few years later the Government took his advice, and Board Schools were started with the comfortable assurance that they should be permissive, and that the rate for them should in no case exceed a half-penny (or a penny, we are not sure which) in the pound. A little later the education was made "free and compulsory," the first step in a progressive destruction of the self-reliance and independence of the masses, and the rate has grown so that it is by far the heaviest burden on the ratepayer, far more than the highway rate. But the education, though new items are constantly being added, has not been of the sort to make good citizens, nor even good workmen. It has been for the most part literary, to the exclusion of handicraft or any other preparation for the future career of the pupils, who for the most part leave the schools uncultured, and forget most they have learned. Science and art are taught only to the favoured few who proceed to the secondary schools, economics not at all except incidentally, and then of the brand favoured by Trade Unions. Their real education comes in the office, workshop, or field and, naturally, is on economic questions of the same brand since it is given them by their fellow workmen or, perhaps, by street corner orators. Can it be wondered that these men are worse workmen than their illiterate forerunners, though they may be in some degree more intelligent and civilised since they live in a more complex age?—*The Contract Journal.*

Luncheon to the Parliamentary Secretary of the Ministry of Health.

The Society of Architects gave a luncheon on January 8th to the Parliamentary Secretary to the Ministry of Health, Major the Rt. Hon. Viscount Astor, at the Trocadero Restaurant. The President, Mr. Edwin J. Sadgrove, was in the chair, and there were present :—Viscount Astor ; The Director-General of National Housing, Sir James Carmichael, and Lady Carmichael ; the President of the A.A., Major M. Webb, D.S.O., M.C., F.R.I.B.A., and Mrs. Webb ; Sir Arthur Durrant, M.V.O., O.B.E. ; Sir Alfred Dennis, C.B., K.B.E. ; Mr. Walter Cave, V.-P., R.I.B.A. ; Mr. Raymond Unwin, F.R.I.B.A., and Mrs. Unwin ; the Senior Vice-President, Sir C. T. Ruthen, O.B.E., F.R.I.B.A., and Lady Ruthen ; the Junior Vice-President, Mr. A. Burnett Brown, F.S.I. ; Sir Ambrose and Lady Poynter ; Mr. E. J. Hill (President of the Institute of Builders) ; Messrs. D. Haggerty, J. P. Lloyd, and S. Stennett, of the Building Industries Consultative Board ; Mr. Percy Tubbs, F.R.I.B.A., P.P.S.A., and Mrs. Tubbs ; Mr. E. C. P. Monson, F.R.I.B.A., P.P.S.A., and Mrs. Monson ; the Hon. Secretary, Mr. Noel D. Sheffield, F.S.I. ; the Hon. Treasurer, Mr. George H. Paine, and Mrs. Paine ; the Secretary, Mr. C. McArthur Butler, F.C.I.S. ; the Assistant Secretary, Captain M. G. Kiddy, and a large gathering of Members and their friends, including a number of ladies.

Letters regretting inability to be present owing to other engagements or illness were received from :—H.R.H. the Prince of Wales, K.G. (who asked for a record of the proceedings) ; Lady Astor, M.P. ; the Prime Minister ; the Home Secretary ; Mr. Arnold Rowntree, M.P. ; Sir J. Tudor Walters, M.P. ; Col. Prettyman Newman, M.P. ; Major Harry Barnes, M.P. (Member) ; the President of the R.I.B.A. ; and the President of the Royal Academy.

Telegrams from those who had accepted invitations, but were prevented by illness or affairs of State from being present, were received from Sir R. S. Horne, K.C., M.P. (Minister of Labour) ; Sir Kingsley Wood, M.P. ; Mr. J. W. Lorden, M.P. ; and Mr. F. L. Dove, President of the National Federation of Building Trades Employers.

The loyal toast having been duly honoured, the President, MR. E. J. SADGROVE, proposed the toast of " Our Guests," and in doing so said The Society of Architects extended the heartiest welcome to their guests, and in particular to the Right Honble. Viscount Astor, the Parliamentary Secretary of the Ministry of Health.

To their great regret, Lady Astor, M.P., had found it impossible to accept an invitation owing to her other engagements, but he felt sure that the housing problem was one in which her Ladyship took the greatest interest.

Viscount Astor and The Society of Architects were no strangers to each other. Some time ago his Lordship was good enough to receive on behalf of the Minister of Health a deputation from the Society on certain aspects of the Housing question, when the views expressed by the Society received his Lordship's sympathetic consideration. Viscount Astor's knowledge of the work of the Ministry of Health would enable him to judge whether any views expressed at that gathering were likely to result in improving the industrial outlook and in getting the houses built.

A good deal of criticism on the Government Housing proposals had been destructive, or to use the Prime Minister's words, " there had been more ' brick heaving ' than brick laying." but he proposed to endeavour to offer some constructive proposals, though at the moment he could deal with the subject only very briefly and on broad lines, and must leave untouched many important considerations bearing upon the matter. The immediate point was, Why are not the houses forthcoming, and where is the shoe pinching?

No doubt they were familiar with the recent memorandum of the Building Industries Consultative Board, of which he was pleased to see several members present, and they would agree that the interchange of views of the delegates had served a most useful purpose, and that the memorandum coming from a body representing practically the whole machinery of the constructional side of the building industry, was a step in the right direction. He invited particular attention to the call to every member of the building industry to put forth his whole strength and speed up the rate of progress, and urged that its true meaning should be emphasised to the whole of the operatives in the building industry, otherwise he was afraid that by itself it would not have the effect on the average workman which they all so much desired.

It had been stated in the Press that France was alarmed at the high prices ruling in England, and talked of getting her materials for reconstruction from Germany. That surely should cause patriots to make up their minds to stop the creeping paralysis of restricted output which was permeating every industry, and it must be done if their country was to hold its own in the commercial markets of the world. Before the war, the building trade operatives were saturated with the pernicious doctrine that the more they restricted output the longer they would be in employment, and they were not told by their leaders that it was a suicidal policy, because the leaders believed it themselves, and acted according to their convictions. The "round table" talks they had had with labour delegates had been instructive and useful, and had given each a clearer insight into the other's views, and he thought he was right in saying that they admitted the folly of the doctrine of "limited output," and would be ready to tell their members so, although it would seem that there were still members of the Unions who carried a good deal of weight with the rank and file who were not yet converted, and who influenced those who did not trouble to think things out.

Employers knew how one man with a picturesque flow of language could magnify an insignificant incident into an affair of great importance, and by hindering or stopping the work, bring about great loss to everyone concerned—including the prime movers. What was needed was an educational propaganda carried through the personal agency of level-headed operatives amongst their men.

Building owners, architects and contractors were aware that an ever-increasing rate of wages without a corresponding response in service, meant bankruptcy. There was also the added danger that a high wage labour market attracted labour from other parts of the world, and a still more serious aspect was, that prohibitive cost of production absolutely paralysed their chances to compete with other countries, which must spell ruin. The national credit was not so good as it ought to be, and the only way to put that right and ultimately to wipe off the National Debt was to increase the efficiency of man-power, by straining every nerve and exerting every effort towards securing and maintaining commercial supremacy in the future. The ambition to excel was inherent in our race, and no matter what the sport was, the more expert the opponent, the better position he could command. If they were all levelled down to the same standard, it would kill the spirit of self-improvement. If one man was more skilful than another at the same trade, he was entitled to a higher rate of pay.

If the existence of the paralysis referred to was admitted, what useful steps could be taken to effect a cure, and what help could be given to the Trade Unions leaders to induce them boldly to advise their members to scrap the old doctrine and get on with the new?—or rather, to revive the only thing worth living for, viz., " That every man be free to use as he chooses the talent with which his Maker has endowed him, and the only limit to his reward shall be his ability to earn it."

In the early days of the war, when a considerable number of people were asleep, a " wake up " Press and pictorial poster propaganda was undertaken, and they did wake up, and ultimately won the war. Could not they all work together on some similar lines and solve the national problems of unrest and housing at one and the same time? Let the Government take the lead in organization, and there were plenty of enthusiasts who would give their services to the cause, including architects, surveyors, contractors, manufacturers, and operatives, and with the help of the Press, he was sanguine there would soon be a marked improvement in output.

Three of the most important factors in the situation, so far as actual building was concerned, were architects, contractors, and operatives. Speaking for architects, they were already mobilised by their professional Societies and available to be more fully called up for professional service in the interest of the State. A clear understanding and combined action by these three factors would do more to produce houses and other buildings than anything else, but it was an essential condition precedent to success that the " limited output " doctrine must be abandoned.

As regarded building contractors, in his opinion they were conducting their businesses on more enlightened lines than they were able to do years ago. Their works were better equipped, and their methods more scientific. Education was telling its tale, and he believed they would welcome and encourage any sound and useful proposals submitted by operatives which might lead to greater efficiency and economy in production, and which would not only benefit those immediately concerned, but also the community at large—in other words, they desired to work with the workman for their mutual advancement.

He had heard it argued that the high cost of materials was chiefly responsible for the alarming estimates for buildings which they were receiving. It might be a contributory cause, but it was not the chief one, and an effective combination of the three forces previously mentioned could stultify undue profiteering or trafficking in the essential materials required for the national housing and reconstruction programme. Architects throughout the country had in hand plans for work estimated to cost in the aggregate many millions, not so-called luxury buildings by any means, but industrial works, schools, etc., which ought to go forward in the interests of the workers and the community, but as soon as estimates came in, the clients were frightened, and the job got held up. Prices, however, could not possibly fall while the wages that govern them steadily rose. The effect of higher wages was higher prices, not better living. The latter could only be attained by increased production.

Let them do their best towards making 1920 a real Peace Year, by getting together and evolving a scheme to solve the unemployment bugbear.

If there was anything in his remarks which might be thought to be of service in the speeding up of production in the building industry—and those guests who represented Government Departments would conduct the ideas into the proper channels—one of the objects of that gathering would be achieved.

The Senior Vice-President, Sir Chas. T. Ruthen, o.b.e., in supporting the toast, said The Society of Architects had long felt it desirable that there should be a closer association between architects—whose work probably affected the life of the nation more than that of any other profession—and the general public, Parliamentarians, Ministers, and others. Unfortunately, architects, as a body, had not taken very much part in public life, and one object of the Society was to bring them into a closer relationship with it, and so assist the architects in their work. To this end, the Council decided to hold a series of social public functions, and to invite prominent people as their guests. The first one took place in July,, when H.M. First Commissioner of Works, Sir Alfred Mond, was entertained. That afternoon Viscount Astor, the Parliamentary Secretary of the Ministry of Health, was the principal guest of the Society, and they were exceedingly disappointed that Lady Astor had been unable to accept the invitation as well. The ladies present in particular would like to express to Lady Astor their sincere regret at her absence and the pleasure that they would have taken in welcoming the first lady M.P. of this great country. At no time in the history of the world had there been greater need for co-operation not only between all professional ranks but between all classes of people. The President had dealt with the difficulties in connection with housing, perhaps one of the most urgent social problems of the present day. One would like to see daylight, but he thought it was a very long way off. The points outlined by him were those which if taken to heart and circulated by the Press, might tend very considerably towards solving that most complex problem. They wanted houses—good houses, if possible—the better they were, the better everyone would be pleased. But they must have houses, and quickly, otherwise the difficulties would be increased very much. The architects of the country realised the tremendous difficulties that the Minister of Health and his officials had to face, and they had the sympathy of the members of the architectural profession. It was very easy to criticise, but very much more difficult to suggest a solution, and whatever might be said against the Ministry or the officials for delay, he thought the charges were not always fair, and that the Minister and his officials were doing their very best. He hoped to see very soon considerable progress as the results of the efforts now taking place at the Ministry. He had the greatest pleasure in supporting the toast of "Our Guests," and hoped that these gatherings would be the fore-runners of many other similar meetings, which would tend towards closer co-operation between members of the profession, the public, and the Government.

MAJOR THE RIGHT HON. VISCOUNT ASTOR, Parliamentary Secretary of the Ministry of Health, in reply, said he very much appreciated the way in which the toast had been proposed and seconded. It was unusual and therefore all the more gratifying to find people saying publicly that the Ministry of Health had done as much as they might have done in connection with the housing programme. He was himself the only representative of the Government present, but not the only representative of Government Departments, which he observed the Chairman stated "cannot be depended upon." It was right that Government Departments should be criticised, and that anything in the nature of Government control should be resented. That great country had grown up through the development of the independence of the individual, and anything like bureaucratic control was very naturally resented, but their civilization was so complex and the task so difficult, that it was absolutely essential there should be a certain amount of "Government control," and he was sure they could not have a Controller in whom they had greater confidence than Sir James Carmichael. He and they at the Ministry of Health had had to establish a minimum standard of housing in their programme. They not only wanted to build houses, but they had got to be satisfactory houses, a better standard than they had before the war, not only for towns, but for the country. They were frequently criticised for having set too high a standard for the agricultural labourer, but the average family of the agricultural labourer was 16 per cent. larger than the average family throughout the country. Therefore, they would have failed in their national duty if they had allowed a lower standard of bedroom accommodation for Rural cottages than they had set down for Urban cottages. He mentioned that as an example of the way in which so-called " Government control " was criticised and misunderstood by those who did not take the trouble to think about it. He believed they were exercising the minimum of control and using the minimum of red tape, but it was absolutely vital for a proper standard and due economy, and having regard to the fact that they were responsible to the Treasury and the tax-payer that there should be a certain amount of Government supervision of the great housing programme. Architects had a great opportunity and responsibility before them at the present moment. The appearance of this country very largely was in their hands in connection with the rebuilding and reconstruction of it ; but not only that, it was for architects to assist the Government in effecting economy and in getting the housing programme dealt with rapidly. They had to clear away the slums, and unless they could do this rapidly there was a real danger that the slums would clear away the established order of things as they knew it at the present day. It was a huge task that was ahead of them. They had talked in terms of half-a-million new houses. The latest reports showed the minimum requirements of new houses to be at least 800,000. He was not going to deal with the point which the President touched on in regard to the question of labour, but if there was going to be one limiting factor, one weak link in the chain, it was the amount of skilled labour available for the building of these houses. It was absolutely vital that by next Spring there should be enough skilled labour to put up these houses. There was not a large pool or reservoir of skilled labour now employed on " luxury " buildings that could easily be diverted. It would not be fair, speaking as the representative of the Ministry of Health, if he stated that to be the case. It would not be in the national interests either to divert labour from the erection of factories and workshops which were to give employment to large numbers of workers, in order to build houses. They had to be in a position to build houses and also factories. The present situation was serious and critical. He said just now that the minimum national requirements were 800,000 new houses, and every child now born into the world called to them to hasten on the housing programme. Every insanitary building, and there were many of them in all their large cities, and also in the rural districts, pointed a finger of reproach, and would continue to do so until they had solved that difficult question. The problem before them was not that of putting up a few villas, or a few cottages, or of clearing away a few plague-spots which they called " slums." It was not town-planning a few suburbs, or laying out a few garden cities. The real problem ahead of them was the rebuilding of England, the preservation of its natural beauties, and the removal of those hideous creations which they owed to the mean material spirit of the last generation. They had also to stop the huge growth of some of the industrial centres. Take London. Already it was difficult to bring the people into London and take them out again, and for the inhabitants to move about London. They had to look at this national problem with a national eye, and to consider town-planning and regional surveys far more than they had ever done. He was told that town-planning and the building of garden cities was a sort of " black art," that there were only half-a-dozen men in this country who could " town-plan." If the war had taught them anything, it was that there were no " black arts." The war was won not by the military mind, but by the abilities of the ordinary individual to rise to meet the situation when it presented itself. They were not going to tell him that in that room where there were many Members of that great Society there were not men and women competent to deal with town-planning, but, if they were competent, as he was convinced they were, let them turn their minds in that direction. The task before the architect was not merely that of building a few houses, but of erecting new villages and new cities. When they were passing the Housing Bill, a member put forward an amendment to add a clause compelling them to exercise a due measure of taste in the erection of new houses. "Taste" was a thing which could not be defined by Act of Parliament, any more than could imagination or prejudice, and architects required taste and imagination, and must have no prejudice in dealing with the housing problem. If they were to deal with it rapidly they had to stimulate invention, to adopt new methods of construction, and if possible find new materials and new sources of labour. Do not because at some time some concrete houses have "sweated" be led off-hand to condemn all concrete houses. Almost every day he heard the subject mentioned, and that it had been put aside as inconceivable as a possible solution. At the Ministry they hoped to form open-air "Museums" in London and throughout the country, where new forms of construction would be used in houses put up, so that architects and the general public might see for themselves exactly what they looked like. The Ministry favoured some of the new forms of steel and concrete houses, not only because that method provided an additional material, but because of the rapidity with which these houses could be put up. The whole essence of these new forms of construction was in many cases a measure of standardisation. He was warned that any reference to standardisation would not be well received by his present audience. Only the other day the head of a great firm that had produced a very satisfactory type of steel and concrete house was complaining because whenever they submitted their standard plans out they were apt to be told that they would get the order for 100 or 1,000 houses if only the lengths of steel could be altered 8 ins. one way and $\frac{1}{4}$ in. another way. Now one might alter the roofing material and vary the exterior, or throw in an extra bay window, but if they were to make any use of this type of steel and concrete houses then they must not expect the firm that is producing them to try and alter its main structure to satisfy the ideas of each individual architect. It was really important if they were to make the fullest use of these new methods of construction that they should realise that. Having uttered a word of caution, he desired to express to the Society the gratitude of the Minister and himself for the real assistance they had received from architects and all connected with the building trade. They were all brothers in arms working together to meet a national emergency. He did not mind architects grumbling—perhaps Sir James Carmichael who had entered public life more recently might feel it more than Dr. Addison and himself—but those of them who had been in public life as Members of Parliament and who belonged to the race called politicians—were accustomed to criticism, and did not mind architects grumbling, provided they helped them to get ahead. Architects had a great responsibility and a great opportunity. They had to sweep away those hideous industrial quarters in our large industrial cities, and those back-to-back houses associated with the 19th century, and with the absence of air, sunlight and joy in houses and cities. They wanted the twentieth century, particularly that part associated with the period of reconstruction, to help nature, and not to desecrate it, to help preserve and maintain the beauties of the country, to remember that the workers are human beings and not mere machines to be housed in a sort of factory; and to get the best response they must realise that no section of the public had greater responsibilities than they had, and he was sure hat with the sympathetic assistance which they would get from Government Departments, that architects would rise to the occasion.

MR. WALTER CAVE (Vice-President of the R.I.B.A.), said that the guests appreciated very much the hospitality extended to them by The Society of Architects. He spoke as a member of the Royal Institute of British Architects more especially, and he thanked the Society for its kind invitation, which he hoped only foreshadowed a closer connection between the two great bodies of the profession, and he trusted that unity at all events would be the result. Fortunately, he had no particular subject to talk about excepting that toast, so he would close with the words of the great Duke of Wellington, "Say what you have got to say, quote no Latin, and sit down,"

MR. E. J. HILL (President of the Institute of Builders), in support of the other speakers, referred to the question of output. It was too complex and too vast a subject to be discussed then, but in his opinion, speaking from personal experience, there was a very material increase and improvement. One had to remember what the country had gone through during the last few years, and that they were suffering and would continue to suffer from a great war weariness. Their heroes from the other side could not be expected suddenly to revert from that agonizing torture to the humdrum every-day toil, and those who were working hard, although in perfect safety, were working under conditions which though unavoidable, did not lend themselves to the best output. There was a very serious attempt being made by employers and employees to understand the question in a way they had never realized before the war. There were better conditions in factories and workshops. Works Committees had been established and were spreading, lectures were given by some firms and entertainments by others, and there were also technical classes—apart from those which existed before the war—instituted by some firms in their own factories so that the employees might learn something on the spot which otherwise they would in many cases have to travel some distance to acquire at great trouble and expense. All these things showed that there was an earnest endeavour on foot to do all that could be done to inprove the conditions of the workers. The greatest thing of all was to make a man keen on his job, and that would take time, but he felt that with this new spirit abroad architects would see a vast improvement in the near future, for the right spirit was developing, and he was convinced that old England would yet show the world that no one could compete with her.

SIR JAMES CARMICHAEL (Director-General of National Housing) said he was pleased to have an opportunity of publicly expressing his warm appreciation of the valuable services the Society had rendered to the Ministry of Health, and of the personal services of individual members of the Council given some time ago when he was Chairman of the Building Materials Supply Committee. During the past year he had had occasion to consult members of the Society on many points, and had always experienced the utmost courtesy and kindness, and they had always showed a willingness to help and gain an insight into the various problems that had arisen. On behalf of the Ministry of Health he wished to thank, not only the President, but also one of the Past Vice-Presidents, Mr. Alban H. Scott, the chairman of the New Methods of Construction Committee, who in that position was rendering very valuable service, which was very much appreciated. He desired to impress on architects engaged on housing schemes that urgency, combined with simplicity and constructive economy, were essential in order to get a much more rapid provision of houses. Many Local Authorities' schemes were not progressing so rapidly as they would like, and he appealed to architects to remove any causes for delay that may lie at their doors. Architects were surrounded with all kinds of difficulties in dealing with technical staffs, and in getting Committees to arrive at a decision, and so on, but not a day longer should be spent in the preparation of plans than was absolutely necessary. He had the impression that it was not only builders who were busy but that architects were surfeited with work, and that many of them had more work in hand than they could attend to properly. If that were so, he urged that any architect who had a housing scheme in hand should give it priority over any other work. The Housing Commissioners throughout the country had definite instructions to facilitate in every possible way the rapid provision of the plans, and as Lord Astor had said, so far as housing was concerned red tape was reduced to a minimum. Simplicity and economy were absolutely necessary, especially when they considered the very high cost of materials and labour, and extravagance in design and construction only delayed the schemes. It was sometimes said by those who knew no better, that architects could not design economic cottages, but he backed the architects to demonstrate the fallacy of that statement. Now was their opportunity, and he hoped they would rise to the occasion and see that nothing was produced by Local Authorities but excellently designed cottages beautiful in their simplicity. A very great amount of spade work had been done, and the plans for 85,000 houses had been approved, and 20,000 houses were actually in course of erection to-day. He confidently expected that early in the year contracts for the erection of 100,000 houses would be entered into by the Local Authorities. It gave him the very greatest possible pleasure to be there, and to propose the toast of "The Society of Architects."

MR. S. STENNETT (Secretary, London District Committee, Amalgamated Society of Carpenters, Cabinet Makers and Joiners), in supporting the toast, said it gave him great pleasure to do so, because they had met the Society on several occasions in conference, and it had appeared to his colleagues and himself that there was a general desire on the part of architects not only to try and facilitate the housing problem, but also to get the building industry into its normal condition. There had been a number of conferences between architects, builders, and operatives, and they all realised the serious position in regard to houses, but those who were not in the building industry and who had read the various pamphlets issued by Government Departments and had listened to statements made by various Cabinet Ministers, would almost come to the conclusion that the housing problem was a new one. It was nothing of the kind. The housing problem had been a serious one for many years prior to the war, and was one of the platforms of the party to which he attached himself. In 1908-10 there were dozens of empty houses within the Metropolitan area, not because there were not sufficient people to occupy them, but because there were tens of thousands of people who were living in one-room tenements because they could not afford to pay the rent of the houses at that time. Whatever might be said about the housing problem, it could not be said that the workers were responsible for it. On every occasion when they had tried to get the Municipalities or the County Councils to undertake the housing of the people, they had had serious opposition, and it had taken a five years war to bring them together, and to see that they had to work together to get out of the mess. Mr. Hill had stated their relations with the builders, and had shown how they were trying to solve the problem, but the President of the Society had severely censured and condemned the workers. He was like Lord Astor in being able to put it aside. Architects were beginning to realise that they would have to get into harmony with the workers. He did not say they would not get over what was a very serious difficulty, and it was quite possible that the operatives might have been responsible for some part of it. Owing to the conditions of labour in the particular industry, they had to some extent restricted the time that should be worked, and possibly they might have to relax in that way. Take for instance the Society which he represented. During one period of three years they paid something like £100,000 in unemployed benefit, so that it was easy to understand the workmans' apprehension of the danger that he might very soon be walking the streets in unemployment. Put to the Government or some authoritative body that this spectre of unemployment should not always be staring a man in the face. It was all right for those who had something to live on, but for a man with a family the outlook was very bad if he rushed at a job knowing that the next week he was going to walk the streets. He would do his very best to keep his job until he got a chance of another one. He was very pleased to say that so far as his Society were concerned, they had practically no unemployed. Out of 100,000 members in England, Ireland and Wales, they had only 134 who at the first week in the month were receiving unemployment pay. With the help of architects in standardising their work—because in the past architects themselves, he believed, were somewhat responsible, because each architect had his own ideas in respect to mouldings on his particular job—with improved machinery and methods there was no doubt but that they would get over the housing difficulty. The President mentioned the danger of foreign labour competition, but he did not see any danger himself. The country that had the most improved wood-working machinery was America, a country which paid its labour two-and-a-half times as much as they paid in this country, so there was not very much danger so far as the wood-working trade was concerned. The operatives realised and were prepared to recommend their members to do their very best, and to give their best output in trying to get this vexed question settled. They might rest assured that as far as the Trade Union officials were concerned, they recognised the seriousness of the position, and were just as much Britishers as architects were, and loved their country just as much as anyone else. The Great Architect of the Universe never intended that those who built the palaces of the rich should themselves live in slums.

THE PRESIDENT, in reply, said it was quite obvious that he was not afraid of the effect of his remarks on operatives, otherwise he would hardly have invited Mr. Stennett to support the toast of the Society. Sir James Carmichael had said that architects should "speed up." He thought architects would like the opportunity of getting hold of the work. That was the only thing that mattered to architects. He read in the *Evening News* last night with great regret an advertisement published by the Ministry of Labour on behalf of eight or ten architects. One was a Fellow of the Royal Institute and another an Associate of that body, all eager for work, and compelled to ask for it through the advertisement columns of a newspaper. That did not show that the walls of architects' offices were bursting with work. At any rate, his were not, and he hoped Sir James Carmichael would see that the instructions or advice given to Local Authorities by the Ministry of Health that architects should be employed to prepare housing schemes was carried out. The Society had many instances brought to its notice where architects were not engaged to prepare these schemes—in one case several qualified architects were put up in competition with a local carpenter, and the carpenter got the job. The Society had no legal powers to enforce the engagement of an architect, and although the Ministry of Health had agreed on a scale of architects fees, there was a tendency amongst public bodies to ignore this, and it became very easy for other people to offer their services at lower rates of pay, and squeeze out the architect. If Sir James could do something towards urging Local Authorities to employ only fully qualified architects—never mind whether they were members of the Society or Institute, to carry out the housing schemes—if he could do that, they would feel that he had done one more good thing.

Proceedings of the Society.

The thirty-fifth Annual General Meeting of The Society of Architects was held at 28, Bedford Square, W.C., on Thursday, January 15th, at 8 p.m. The President, Mr. Edwin J. Sadgrove, was in the chair, and the Minutes of the previous meeting, as published in the Journal, were taken as read, and were confirmed and signed.

The Secretary announced ten nominations for Membership, and the re-instatement by the Council to Membership of W. Everard Healey, of Ramsgate.

The ballot was then taken for the election of the following forty-three candidates for Membership, and was declared to be unanimously in their favour :

Ackroyd, Samuel William, Waterhouse Street, Halifax. Addison, Joseph, A.R.I.B.A., 9, Church Terrace, Turriff, Aberdeenshire. Alderson, Harry, 10, Keighley Road, Skipton. Allan, George Alexander, 233, Uxbridge Road, London, W.12. Bain, Victor, 38, Albion Street, Leeds. Barclay, David Thomson, City Architect's Dept., Town Hall, Sheffield. Brookes, Wilfred Shirley, The Thatched House, Camberwell Grove, S.E.5. Buttrick, Walter Hammond, Bank Chambers, 109, High Street, Scunthorpe. Callinan, Patrick, F.S.I. 59, Addison Gardens, W. Kensington, W.14. Capon, George, 41, Drakefell Road, New Cross, S.E. Clutterbuck, John Samuel, 10, Almeric Road, Clapham Common, S.W.11. Collins, Ernest Stone, Adelphi Terrace House, Adelphi, Strand, W.C.2. Cooke, Isaac, 97, Melrose Avenue, Norbury, S.W.16. Crabtree, Jervis, 7, Birley Street, Blackpool. Dent, William. 25, John Candlish Road, Sunderland. Dongworth, William Henry, 14, Duke Street, S.W.1. Eaton, Arthur, 6, St. James Street, Derby. Empsall, Stanley, 124, Legsby Avenue, Grimsby. Evans, Thomas, Cwmanne, Elsenham Lodge, Oakleigh Park Drive, Leigh-on-Sea. Gray, David Reginald, Scotch Chambers, Market Place, Dudley. Gray, Thomas Archibald, 126, Northgate Street, Bury St. Edmunds. Hammond, Raymond R., Hill School Farm, Eccleston, St. Helens, Lancs. Hatton Leonard Cowtan, Rockford, Ashtead. Hirst, Lionel Clifford, 1, Park Parade, Morley. Hoare, Alfred William, 28, Trinity Churchyard, Coventry. Laker, William John, 6, Kelmscott Road, Wandsworth Common, S.W.11. Lister, Sidney Albert, 50, Broomwood Road, Wandsworth Common, S.W.11. Maguire, Herbert William, 19, Wroughton Terrace, Hendon, N.W. Merchant, Ralph Walter, 97, High Street, Hoddesdon, Herts. Merrison, Charles Redford, 41, Fountayne Road, Stoke Newington, N.16. Moore, Charles John, Derrygonnelly, Enniskillen. Peart, Andrew Mackintosh, 38, Hallswell Road, Golders Green, N.W.4. Perkins, Joseph, County Education Offices, Northampton. Redgrave, Claude, 14, Little Park Street, and Boston Place, Coventry. Rees, Thomas Taliesin, J.P., F.R.I.B.A., F.S.I., May Buildings, North John Street, Liverpool. Rossiter, Edward Thomas, 56, Oakmead Road, Balham, S.W.12. Saunders, Vivian George, 5, Lyde Road, Yeovil. Tanner, Henry, F.R.I.B.A., Carlton Chambers, 12, Regent Street, S.W.1. Tansley, Harry, 119, Pall Mall, Leigh-on-Sea. Tomlins, Edmund Frazer, 44, Sneath Avenue, Golders Green, N.W. Tomlins, Herbert, Granville Chambers, Bournemouth. Watson, Edward Joshua, Emerson Chambers, Newcastle-on-Tyne. Webb, George Frederick, Scotch Chambers, Market Place, Dudley.

The Council's Annual Report and Balance Sheet for the year ended October 31st, 1919, was then presented to the Meeting. The Report showed a considerable increase in the Membership, which stood at 1,269, over 450 of whom had been on Active Service.

Mr. Pitt, of Messrs. Bolton Pitt and Breden, the Society's Auditors, complimented the Society on its Balance Sheet, which showed a surplus of assets over liabilities of over £5,000. There was no charges on the securities or other property of the Society, and he considered the Balance Sheet to be satisfactory in every way.

The adoption of the Report and Balance Sheet was moved by Mr. Hammond (Member), and seconded by Mr. Trotman (Member), and there being no questions raised, the proposition was put to the Meeting and was carried unanimously.

On the motion of the President, a hearty vote of thanks was accorded to the Secretary and Staff for their services during the past year. Mr. McArthur Butler replied on behalf of the Staff, and acknowledged his indebtedness to all of them.

Messrs. Bolton Pitt and Breden were then re-elected Auditors for the ensuing year on the present terms.

The Business Meeting was followed by a lantern lecture by Mr. E. W. Harvey Piper (Hon. Member), on " Amiens Cathedral," during which he showed some slides not hitherto exhibited in this country, of the damage done by the German bombardment. A hearty vote of thanks was accorded to Mr. Piper, and the proceedings terminated.

Notes from the Minutes.

HOUSING. At a Meeting of the Council held on January 15th, 1920, reference was made to the luncheon given by the Society to the Parliamentary Secretary of the Ministry of Health, Viscount Astor, on January 8th. Letters were received from his Lordship and several other guests expressing their appreciation of the opportunity afforded them of meeting Members of the Society and hearing their views on the Housing question. The Secretary's article in the *Times* Housing Supplement was the subject of congratulatory comment by the Council.

It having been brought to the notice of the Council that there is a tendency amongst some public bodies to overlook the special claims of qualified ex-service candidates for Housing appointments, the opinion was expressed that other things being equal, ex-service men should have preference, and it was resolved to take steps to draw the attention of Local Authorities and others to the matter.

In view of evidence in possession of the Society in regard to certain difficulties affecting the transport of building materials, and of the existence of combines for forcing up prices, it was agreed to draw the attention of the Government Departments concerned to the position, and to place the information at their disposal.

PRACTICE COMMITTEE. Mr. Thomas Wallis was appointed Vice-Chairman of the Practice Committee in the place of Mr. A. F. A. Trehearne, who was unable to continue in office owing to pressure of other engagements.

R.I.B.A. It was stated that acting in co-operation with the R.I.B.A. the Society had requested its Members not to compete in the Bridgwater and Ilfracombe Competitions, pending the result of the steps being taken to secure amendment of the regulations.

CONFERENCES. Invitations were accepted to send delegates to a Conference of Professional bodies convened by the Professional Classes War Relief Council on February 18th ; the Garden Villages Conference at Croydon, on February 27th ; and the Royal Institute of Public Health Congress at Brussels in May.

COUNCIL. Acting under medical advice, Major T. Stewart Inglis, D.S.O., has been obliged to give up all outside work for a time, and has been granted six months' leave of absence from his duties on the Council.

ANNUAL MEETING. At the Annual General Meeting held the same evening, the Council's Report and Balance Sheet for the year ended October 31st, 1919, was received and adopted. The professional Auditors, Messrs. Bolton, Pitt and Breden, were re-elected on the same terms as before. The nominations of ten candidates for Membership were announced, forty-three candidates were admitted to Membership, one Member was reinstated, and the resignation of a Student was accepted.

A vote of thanks to the Secretary and the Staff was passed by the Meeting.

At the conclusion of the Business Meeting an exceedingly interesting lantern lecture was given by Mr. E. W. Harvey Piper, Honorary Member, on " Amiens Cathedral," in which some views of the damage done by enemy bombardment were shown for the first time in this country.

The Housing Problem.

The *Times* has done a public service in issuing a Special Housing Supplement, covering a very wide field and including the opinions and statements of Government Departments, Corporations and other Public Bodies, and of professional and Trade Societies, together with the views of individual experts, and particulars of the latest forms of construction approved by the Ministry of Health, and actually in operation.

We agree with our contemporary that the most serious omission from an otherwise complete summary is the absence of any statement from the Unions representing the building operatives. It is understood that this is due to want of time, but other organisations have made the time in which to express their views, and we suggest that it is a lack of a settled policy which is more likely the reason for the omission.

The Ministry of Health commences with a national survey of the situation, and is followed by Lord Downham on behalf of the L.C.C., who goes into the origin of the housing policy and the spade work done by the L.C.C. before the Armistice. Another correspondent deals with recent Housing legislation, and the financial situation is ably put by Mr. Neville Chamberlain, M.P., who devotes considerable space to the advocacy of house purchase, because he believes it to be a policy calculated in the long run to produce the most favourable results, not only by encouraging private enterprise to provide the means for building, but by adding to the stability of the country and the contentment of the population. This is a point of view which has been constantly urged in the Press by The Society of Architects. The progress of housing in some of the larger Cities is dealt with by those having special local knowledge, and there follows the views of the representative bodies of Architects, Surveyors, Town Planners, and Builders. The views of all these institutions, with one exception, are voiced by their representative Secretaries. The spokesman of the R.I.B.A. is a member of the Council, Major Harry Barnes, M.P., and he puts one aspect of the question of cost in a way calculated to give the public, in our opinion, the false impression that the cost of building is greatly increased when the work is placed in the hands of architects. Those who advocate building without architects will probably make capital out of this. We do not agree with Major Barnes that there is any difficulty in getting proper professional advice, the main difficulty is to get Local Authorities and other Public Bodies to see the advantage of placing their Housing Schemes in the hands of competent architects, and this will not be lessened by Major Barnes' opening statement on the question of cost.

The Society's contribution, printed in this issue, embodies its constructive policy brought to the notice of the Government and Members of Parliament and the public from time to time. It is in essence a plea for the restoration of private enterprise in building. The Society is the only architectural body which gives reasons why architects are the persons best qualified to solve the housing problem.

The Surveyors' Institution is concerned very largely with the machinery of the Housing Acts, and shows how that institution organised a conference, as an outcome of which the necessity of encouraging private enterprise in building was urged upon the Government before the passing of the Housing, etc., Act of 1919. There is an interesting article on the preservation of old cottages from the Society for the protection of Ancient Buildings, and Mr. Aldridge, the Secretary of the National Housing and Town Planning Council, deals with the question of Town Planning and the features of the Garden Suburb. Mr. Aldridge is one of those enlightened public officials who is desirous of preserving a higher standard of housing in general, and who recognises the employment of skilled architects is one of the first essentials to that end.

The Secretary of Ealing Tenants, Ltd., shows how public Utility Societies can help, and offers solutions of the financial problem, while Mr. Rumbold calls attention to the needs of the agricultural labourer, and puts in a plea for artistic cottages and for what appears to be a system of standardising design or the following of one or other of the great architectural styles of the past, and he is imbued with the importance of forming public taste from an architectural point of view.

The attitude of the builders is set out by Mr. White, the Secretary of the National Federation of Building Trades Employers, who makes some very practical proposals for dealing with the problem from the point of view of the important body which he represents. He expresses the opinion that there is no royal road to the solution, and that it can only be found by the policy of co-ordinated efforts on the part of all concerned.

The Agent-General for British Columbia, Mr. F. C. Wade, K.C., suggests mill-cut wooden houses as a solution of the problem. He opens his article with a long extract from Sir Charles T. Ruthen's paper on Housing from The Society of Architects' JOURNAL. Proposals for standardising forms of construction and a description of various means of rapid building methods approved by the Ministry of Health, bring to a close a most useful summary of the situation at the moment.

MR. MCARTHUR BUTLER, writing under the head " Private Enterprise Essential," makes some very good points, especially where he deals with the conclusions of the Building Industries Consultative Board.—*The Architect.*

The point (bad finance) is emphasised by MR. C. MCARTHUR BUTLER, the vigilant secretary of The Society of Architects, on page xii., one of the most informative in the *Times* Supplement. He also touches the spot when he insists—as we have insisted during the past ten years—that, as is once again pointed out by, perhaps, the most competent authority quotable, Mr. A. A. Hudson, an Honorary Member of The Society of Architects, in the *Times* of April 1st last year, that ever since 1910 the building industry has been hampered and the output of houses decreased nearly to zero.—*The Building News.*

The Unity of the Profession.

We hope this year will end the separate existence of the Royal Institute and The Society of Architects, and that the union will be effected by admitting the " members " of the Society as " Members " of the Institute, a new class being instituted for this purpose, while preserving the existing machinery for the creation of Associates and Fellows. We are also in favour of a scheme which, though it may be considered radical by some, has much to recommend it. It is, that the Institute should vacate Conduit Street, moving to Bedford Square, in order to be in close proximity to the Architectural Association, the London Master Builders, and the National Federation of Building Trades Employers. Members of the Association could then use the Institute Library, while members of the Institute could make use of the Association's club premises. The close juxtaposition of these various bodies all connected with building would be a great convenience which would both conduce towards economy and the real union of understanding which we all want, while the Institute premises would be readily let or sold. It is difficult to say where the centre of gravity of all the architects in London would be found to be, but we should imagine that Bedford Square would be as convenient to the profession as a whole as the neighbourhood of Bond Street and Regent Street. —*The Architect.*

The Society of Architects and the Housing Problem.

By C. McArthur Butler, F.C.I.S., the Secretary of the Society.

Nothing is easier than to criticise destructively the Government handling of the National Housing Scheme and to blame municipalities who are saddled with the responsibility of providing houses for the people for delay in supplying the demand, and nothing is more difficult at so late a stage than to make any further suggestions towards solving the problem by way of offering a practical constructive policy beyond that already submitted by the Society of Architects direct to the Government, and made known through the courtesy of the Press to the public from time to time.

There are still people who do not realise that the present critical situation has not been caused entirely by the war, or why it is that it has arisen at all. It may be pointed out that before the war the normal requirements were estimated at some 75,000 houses per annum, the greater number being provided by the private enterprise of individuals, including that very useful public servant the "speculative" builder, who must not be confused with the "jerry" builder, by building societies and partly by municipalities. That the output of houses of the required kind even at that time was not sufficient is shown by the fact that in 1910 the Finance Act was passed, the object of which was to prevent landowners holding up land which might with advantage come into the market for building purposes. This Act, for reasons stated in a letter to *The Times* of April 1st last by Mr. A. A. Hudson, an honorary member of the Society and a well-known authority on the subject, had the opposite effect, and ever since then the building industry has been hampered and the output of houses restricted by the operation of this Act. Then came the outbreak of war in 1914, and with it the cessation of all forms of private building enterprise and of any other building operations except those needed for war purposes, so that for the past five years in particular there have been accumulating arrears of new houses and of repairs necessary to keep existing dwellings in a habitable state, thus increasing the number of houses only fit for demolition. Consequently it is probably a conservative estimate which puts the present requirements at 500,000 houses, and the Labour estimate of 1,000,000 may be more accurate.

Effects of Government Action.

The Government has endeavoured to cope with the situation by creating a Ministry of Health and putting upon local authorities the onus, under penalty, of satisfying the demand for houses in their areas within a given time. For reasons which it is not necessary to refer to in detail this legislation has not had the desired effect, and the Government has acknowledged its failure in a characteristic way by introducing other legislation which provides for subsidising private enterprise in building houses, at the expense, if necessary, of any other forms of building work. That is the present position, and the only redeeming feature of it is that private enterprise is to be encouraged, although in the opinion of the Society of Architects the methods adopted for its encouragement by the Government will more likely end in creating further difficulties.

The point, however, is that the situation must be dealt with as it stands, and there is nothing to be gained by further criticism of the methods which have, in the opinion of the Society, largely contributed to the present difficulties, the chief of which are restrictive legislation, financial and economic considerations, the increased cost of labour and material, insufficient transport and restriction of output.

FINANCIAL CONSIDERATIONS.

The efforts which are being made to repeal or amend legislation injurious to the building industry must be maintained and increased, but side by side with this effort must be another one equally strong in surmounting or circumventing the present difficulties. For a solution of the financial question we must look to those best qualified to advise on this subject, but attention may be directed to some proposals which have been made known through the medium of *The Times* and other papers.

One of these is that of Mr. Westacott that the money required for housing purposes should be provided by private capital, and that two-thirds of it should be a loan to the State against housing bonds payable at par in twenty years' time, with interest in the meanwhile at 5 per cent. per annum. Another suggestion is that the State should lend 90 per cent. of the amount required to the potential house-owner, to be repaid within an agreed period of years. This appears to be somewhat on the lines of the War Service Home Scheme in Australia, under which an ex-Service man can borrow up to £700 from the Commonwealth Bank of Australia the repayment being spread over a period of from five to thirty-seven years at 5 per cent. per annum. Without expressing any opinion on the merits or failings of these schemes, they are at least worthy of serious consideration by all parties concerned as earnest endeavours to solve this particular difficulty.

The high cost of building is, in the opinion of the Society of Architects, more largely due to the restrictions necessarily placed by the Government on private building enterprise during the war than to any other cause.

During that period the Society put forward for the consideration of the Government practical suggestions for facilitating the production of building materials by a fuller use of local resources and of "substitute" materials for those of which there was then a shortage, the early demobilisation of men required in "key" industries connected with the building trades, the reduction of excessive railway rates, the nationalisation of canals as a supplemental means of transport, with suggestions for their improvement, the use of surplus mechanical transport facilities to be reserved for the carriage of building materials, and the reduction of high prices in certain trades due to the action of combines and trusts. The Society also suggested a remedy for the limitation of output where it existed by giving the workers either directly or indirectly a financial interest in the result of their labours.

BUILDING BY-LAWS.

In addition to this, the Society urged upon the Government the necessity of relaxing unduly restrictive building by-laws, pointing out that this could more safely be done if the housing schemes were placed in the hands of competent architects. Since then building by-laws have been relaxed in certain cases and various methods of building construction of a special character to meet the emergency have been approved by the Ministry of Health, but the further restrictions which the latest form of legislation appears to foreshadow will, in the opinion of the Society, still further hamper building operations by aggravating the artificial conditions created by the Housing Act.

In regard to any further economies in the design and construction of houses, there are a number of architects who have evolved and used economic systems of construction. Sir Charles T. Ruthen, Vice-President of the Society of Architects and other members have shown what can be done in this direction in Wales and other centres, while if the suggestions made by Mr. E. J. Sadgrove, the president of the Society, for the more extended use of gas for domestic heating and cooking were fully adopted, chimney-stacks and breasts might be eliminated and other economies effected in the design and construction of dwelling houses which it has been estimated would save the Government some £25,000,000 in labour and material, as well as conserving the coal supply.

Private Enterprise.

The Government has already admitted that private enterprise in building must be encouraged. The way to encourage it is not by subsidising one form of building enterprise at the expense of another, but by removing all restriction and control which, however necessary in war time, are now out of place. Workmen must be encouraged to increase production, and unemployment doles must be stopped, trusts and combines which have for their object the control and inflation of prices of building materials must be done away with, transport must be facilitated, restrictive legislation repealed, and private individuals have restored to them the right to carry on their lawful business in a normal manner. If this is done the building industry will revive, and there will be no lack of people willing to build houses and of workmen and materials to enable them to do so.

Some months ago a conference of architects, master-builders, and operatives was held in London, at which all the difficulties to which I have referred and a few others were discussed, with the result that the Building Industries Consultative Board was formed by members of bodies representing architects, surveyors, master-builders and operatives, such as labourers, carpenters, joiners, bricklayers, and others. This body has recently issued a manifesto stating that the building industry cannot depend upon the Government for its revival, which must be undertaken by those immediately concerned, and the Board demands that the building industry shall be freed from the control and interference of officials and enjoy to the full that liberty to manage its own affairs which it possessed before the war. The Board expresses the view that Government control of building materials should cease, and urges all members of the industry to pool their resources, including output, pointing out that there is no fear of unemployment in the building trade, as it will be engaged for many years in making up the enormous arrears, to say nothing of the constantly increasing building demands of commerce.

Here is a body representative of the directing, constructing, and operating sides of the building industry, and consisting of men who know what they are talking about and how to carry their policy into effect. It will be noted that the very people who are themselves urgently requiring the houses which they desire to take a share in building are strongly represented on the Board, which should be capable of finding a solution of the present difficulties, especially if its scope is extended to include other experts and the Board given executive powers.

The Sphere of the Architect.

Many of the difficulties which confront the Ministry of Health in dealing with the Housing problem would not have arisen if in the first instance and in the early stages the Government had invited architects through their professional societies to place their expert knowledge and services at the disposal of the State. Although architects have been badly hit by the war and by restrictive legislation affecting the building industry, it is with no ulterior or self-seeking motives that the Society has consistently urged that the architects of the country should have the carrying out of the housing schemes, but because architects who have been trained to deal daily with questions similar to those with which the Government are faced are, in the opinion of the Society, the persons best qualified to solve the problem.—*From The Times Housing Supplement, January 9th,* 1920.

Current Competitions Conditions.

The following current competitions conditions are filed with the Society for reference :—BIRMINGHAM, LAY-OUT ; CHATHAM, LAY-OUT ; CHELTENHAM, WAR MEMORIAL ; EXETER, PUBLIC HALL ; HOUGHTON-LE-SPRING, SECONDARY SCHOOL ; WINSFORD, WAR MEMORIAL ; BELGIUM, REBUILDING DEVASTATED AREAS.

Members are requested not to take part in any competition without first ascertaining from the Society that the conditions have been approved by the Council, and to draw the Society's attention to all architectural competitions at an early stage, at the same time sending a copy of the conditions if possible.

Work for Ex-Service Architects.

From statements which have been made, it would seem that some members of the Ministry of Health and of Local Authorities are under the impression that architects are so busy with other professional work that they have no time to devote to Housing Schemes.

The Society of Architects points out that so far from this being the case, there are plenty of well qualified architects, particularly ex-Service men, who are looking for Housing work, and who are only too anxious to obtain it.

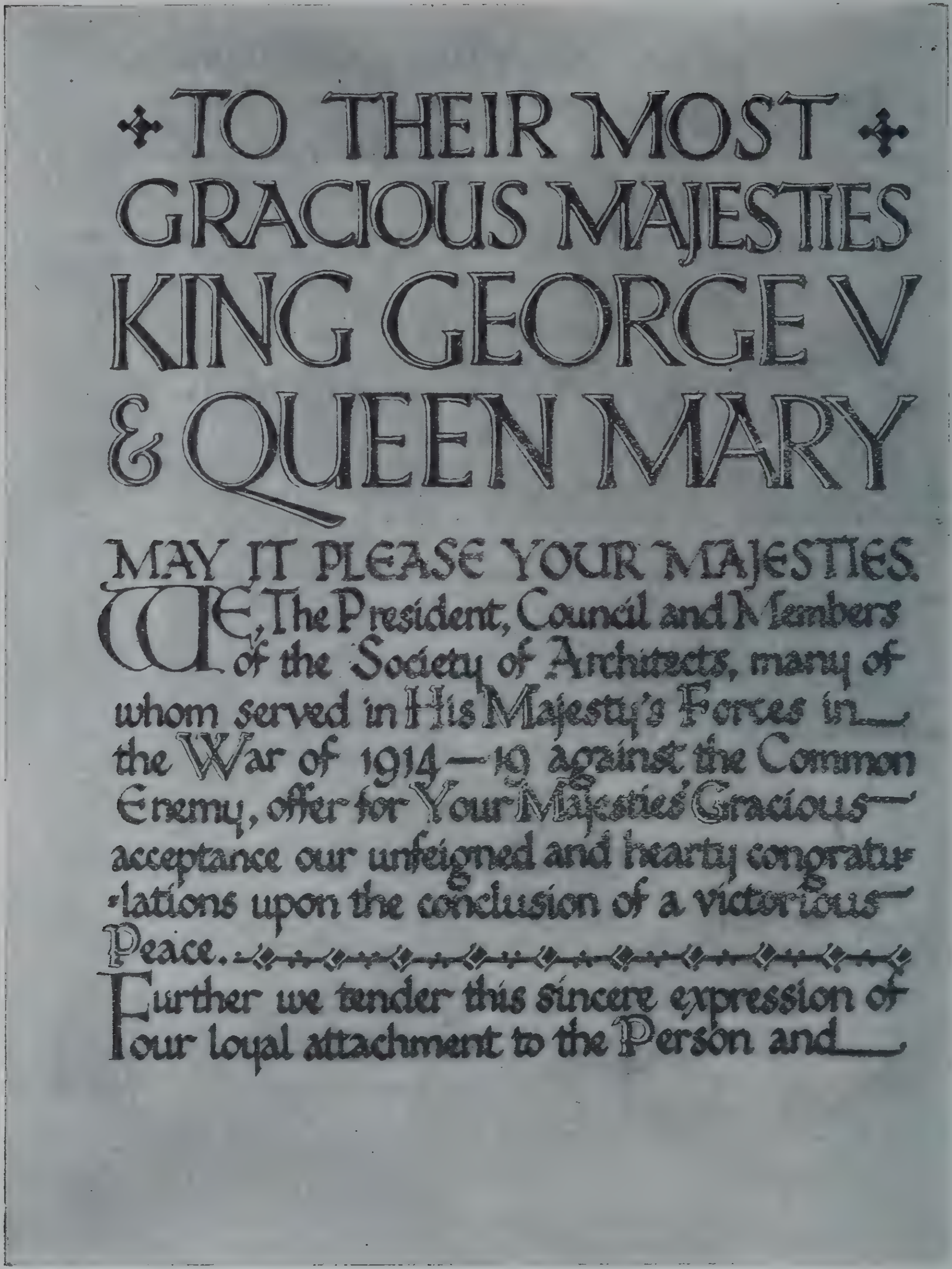
Acting on information received as to the treatment meted out in some cases to ex-Service candidates for Housing appointments, the Council of the Society has unanimously passed a resolution expressing the opinion that, other things being equal, ex-Service candidates should receive preference for Housing and other appointments open to qualified architects. The necessary steps are being taken to bring this resolution to the notice of those concerned.

"The Starting Point for London Development."

A meeting of The Society of Architects will be held on Thursday, February 12th, 1920, at 8 p.m., when a paper on the above subject will be read by Mr. G. A. T. MIDDLETON (Past V.P.).

SYNOPSIS :

Nearly ten years ago a scheme was propounded by Mr. G. A. T. Middleton for linking up the City and the West End of London by converting the present loop line of the S.E. & C. Railway from Cannon Street to Charing Cross into a high level roadway, and establishing a new combined Terminus Station on the South side of the Thames. Since then public discussion has focussed upon Charing Cross Terminus, and the demand for its removal across the river has grown until it is well-nigh irresistible, and several methods by which it might be accomplished have been put forward. Profiting by these, and by the criticisms passed upon his original idea, and taking into consideration many changed aspects of the problem, Mr. G. A. T. Middleton, while adhering to the general lines of his first scheme, has modified it in detail, and hopes to show that it would be a practical and profitable undertaking in spite of the great cost involved, that all the great interests concerned would be benefited, and that it would solve many of the most pressing problems of London traffic and development.



TO THEIR MOST
GRACIOUS MAJESTIES
KING GEORGE V
& QUEEN MARY

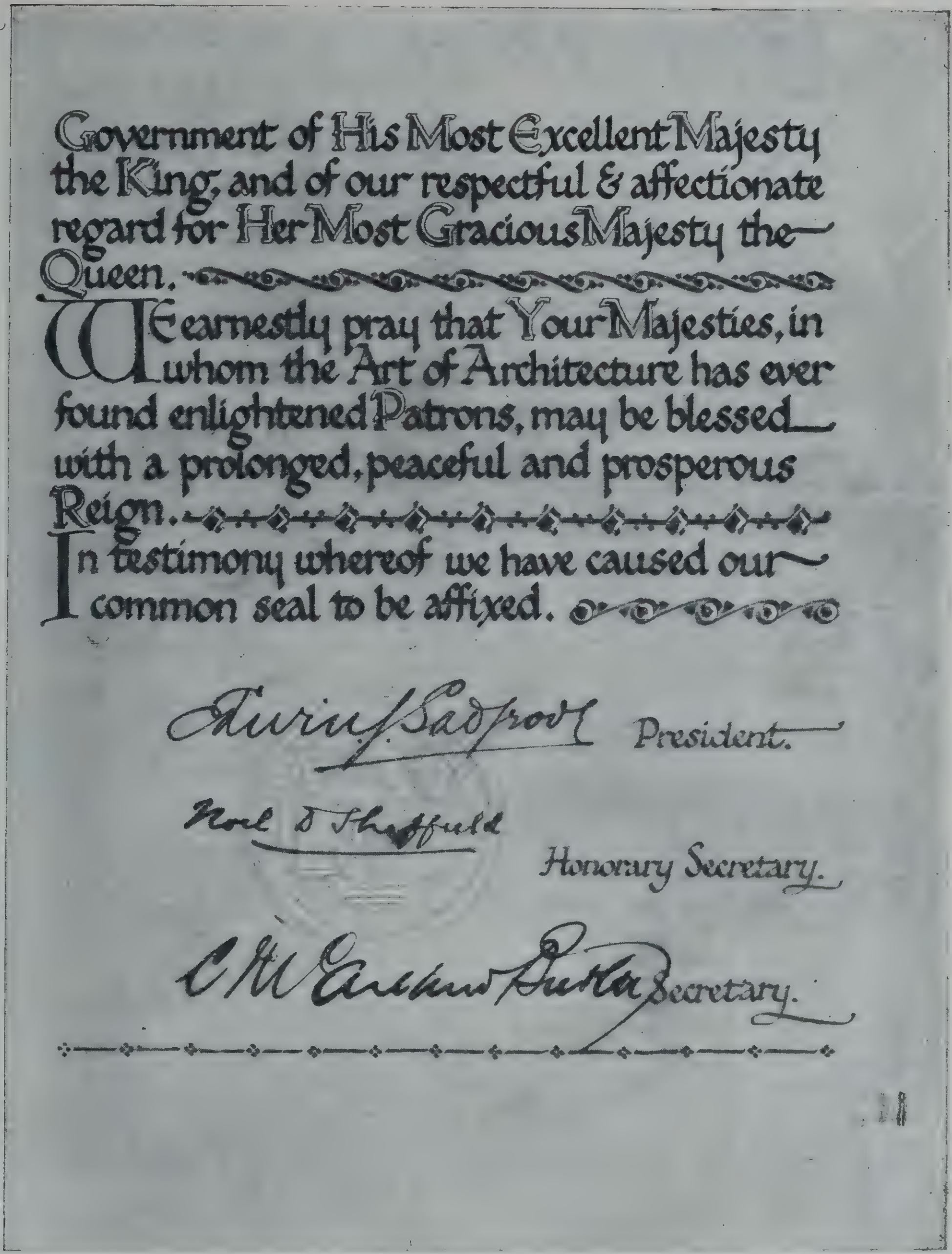
MAY IT PLEASE YOUR MAJESTIES.

WE, The President, Council and Members of the Society of Architects, many of whom served in His Majesty's Forces in the War of 1914—19 against the Common Enemy, offer for Your Majesties' Gracious acceptance our unfeigned and hearty congratulations upon the conclusion of a victorious Peace.

Further we tender this sincere expression of our loyal attachment to the Person and

ADDRESS PRESENTED BY THE SOCIETY OF ARCHITECTS AN

The address, which is in book form on



Government of His Most Excellent Majesty the King, and of our respectful & affectionate regard for Her Most Gracious Majesty the Queen.

We earnestly pray that Your Majesties, in whom the Art of Architecture has ever found enlightened Patrons, may be blessed with a prolonged, peaceful and prosperous Reign.

In testimony whereof we have caused our common seal to be affixed.

Edwin J. Sadgrove President.

Noel D. Sheffield Honorary Secretary.

C. McArthur Butler Secretary.

CIOUSLY ACCEPTED BY THEIR MAJESTIES THE KING AND QUEEN.

designed and executed by Miss Phoebe Rennell.

Registration of Architects in Australia.

One of the aspects of registration is dealt with by a correspondent (*Building*, Sydney), who says :—

" Registration will mean a great advance in building design ; the ordinary box design of cottage will vanish, as designed by the builder, and architects will have a fair go. Another matter should also be ventilated ; in accordance with the Local Government Act, all plans must be submitted to Councils for approval. These plans are generally recommended for approval by Inspectors, who practically know nothing about building construction.

" We all have our varied experiences, which, if given expression to, may pave the way for better times in regard to the architect's profession as a whole."

The State (N.S.W.) Bill for the Registration of Architects was read for the first time on November 3rd in Committee of Parliament. The Minister, Mr. James, in presenting the Bill, explained the provisions which have for so long been known to members of the profession and others, but there is an addition to the powers under the Bill for the continued registration of an architect after his decease ; true, for the purpose of winding up his business, it would be right and fitting that a duly qualified architect should be allowed to continue the practice under the deceased architect's name, for and under the instructions of his trustees or executors, but that this permission should remain indefinite and indeterminable is beyond comprehension. The permission which the Bill proposes to grant, should be terminable on the winding up of the estate.

The Minister's main argument for the Bill generally was that it is necessary in the present day for houses to be designed in a sanitary and comfortable manner and that we should have properly qualified men to do the work.

This argument falls far short of expressing the importance of the Bill and it is a pity that some architect member did not think it necessary to give eloquent support to this important measure. The only notice of the Bill by members of Parliament was that of Mr. Simon Hickey, who could hardly be qualified to plead the architects' cause, in fact, the burden of his eloquence was to demand that the period of qualifying practice should be reduced from four years to nothing, and one understands his democratic principles from the following dissertation. He said, in reference to persons applying for registration : " Having been probably a mechanic or a builder, with a natural aptitude for drawing plans and drafting specifications, he hangs up his shingle in the competitive field and survives. That ought to be sufficient evidence that that man should be regarded as having a vested right in the continuity of his profession."

Nobody seems to have noticed that such an argument effectively destroys the necessity of the Bill at all, for, neither " natural aptitude for drawing plans, drafting specifications or hanging up shingles " could possibly be accepted as evidence to that capacity which the Bill aims at having in the registered architect.

Fortunately, Mr. Hickey did not try or succeed in having any amendment to this part of the Bill, but the addition proposed by Mr. James, with regard to deceased architects, must be looked into and a period fixed for the determination of the inheritance.

For some time past the question of registration of architects has been before the Tasmanian Institute of Architects. The matter has been delayed on several occasions in the hope that one at least of the mainland States would pass an Act which would serve as a precedent. As a result of the Federal Conference, the Tasmanian Institute has resolved to take immediate steps to prepare a draft Bill, and have the measure brought before Parliament during the present sesssion if possible.

National Congress of Belgian Architects.

By W. E. Woolley, m.s.a., Hon. Cor. Mem., Liege Association of Architects.

The Ninth National Congress of Belgian Architects was opened on Sunday morning, December 14th, 1919, at the Palais de la Bourse, Brussels.

The President, Monsieur Mankels, referred to the part played by Belgian architects during the war—he named those who had fallen on the battle-field and those who had died in other ways for their country.

On the proposition of Monsieur Bonduelle (Société Centrale d'Architecture de Belgique), and M. Symons, it was decided to request that :

"The 'Ministre de l'Interieur' created a Committee of distribution or allotment of architectural works, and the said Committee should comprise a very limited number of architects chosen by their fellows, and representing the devastated regions. This Committee should propose the allotment of works according to the special capacities of the architects, and it should take over works already entrusted which had not given satisfaction."

The Architects' Diploma.

Monsieur Arthur Syners (President, Liége Association of Architects) discussed the question of architects' diplomas, which had been agitated for since 1874, in the various professional organs and Congress. He said it was not sufficient that the architect should have indispensable knowledge, it was necessary, in addition, that h should be an artist. In general, the existing instruction responded to these exigencies. Public authorities appeared to welcome their measures, but the diploma, which would be recognised by law, had not, however, been created. There was nothing guaranteed to the client that the architect possessed the necessary qualifications. A programme of studies, a probationary term should be imposed.

M. Gilson reminded him that anyone could call himself an architect on paying for the license !

M. Symons set down a resolution inviting the authorities immediately to create an architect's diploma, which was indispensable to the reconstruction of the country, and charging the National Federation to enter immediately into co-operation with the Government for the realisation of this measure.

M. Vinck, sénateur, director of "l'Union des Villes," pointed out the measures to take in the meantime. Whilst awaiting the diploma, which would be recognised by law, it should be necessary to require plans to be signed by a licensed architect. However, as in the case of the other liberal professions, architecture was both a science and an art. They did not lay claim to make artists, but they would like to distinguish the competent. The solution was urgent, if one would avoid grave accidents, and irretrievable disfigurement of the country.

Messieurs Mankels and Symons thanked M. Vinck. The proposals of Messrs. Bonduelle and Symons were unanimously adopted.

Should Ypres Be Rebuilt.

Was it necessary to rebuild Ypres as it was before the war, asked Monsieur L. David ? He thought not. The economic conditions had changed, and the destroyed towns could not be as they were ! Let them adopt plans and the procedure of reconstruction to the exigencies of modern life and of social evolution. Let them preserve the principal ruins : the Cloth Hall, St. Martin, St. Pierre ; testimony to German vandalism, and of the endurance and of the courage of the Allies : 250,000 English sleep under the ruins of Ypres ! A lapidary or monumental museum should be formed of the most interesting débris. Some façade types should be rebuilt, but the reconstruction of Ypres should be approached in a spirit frankly modern.

M. Vinck announced that the Railway Department and the Departments of Science and Arts would enforce some stipulations to obtain in future an artistic character to their own constructions, such as Schools, Stations, etc. Competitions would be arranged for this purpose.

Further discussion on the problem of Ypres took place during the afternoon, in which the following took part : Messrs. Gilson (Brussels), Faniel (Liége), report read by M. Syners (President, Liége Association of Architects), Michel (Brussels), and Van Renterghen (Ghent). With the exception of M. Gilson, all were in favour of the reconstruction of Ypres in modern style, the ruins of the Halles (Cloth Hall), and of the Cathedral of St. Martin only, to be preserved.

M. Dhuicque (Professor at the Academy) said the martyred City was a jewel of their artistic treasure ; it marked, in the same way as Arras, Rheims and Verdun, one of the main points of their resistance. But the Government had not yet given its decision on the proposals submitted in 1916. In France, on the contrary, vigorous measures were taken by the " Commission des Monuments Historiques " ; works of consolidation and repair had been undertaken everywhere. Views of Rheims and of Soissons fully proved this. But here, the tombs of the Bishops of Ypres, a year after the armistice, were still buried under rubbish.

Think of it, only a Museum taking all that could be saved from the débris ; only the tragic ruins of the Cloth Hall, and of St. Martin, consolidated and kept in good repair, as a souvenir of their sorrows, and of their glories. The rebuilding of Ypres was an absolute material impossibility. One could, on the contrary, make a modern and living town of it, and a competition should be arranged between Belgian architects. A resolution on the above lines was carried with one dissentient.

The President of the S.A. Branch.

William John McWilliams, the new President of the South African Branch of The Society of Architects, was born in County Tyrone, Ireland, in 1873. At an early age he accompanied his parents to South Africa and completed his education at the Grey Institute, Port Elizabeth, where he obtained the Municipal Scholarship.

After serving his articles with Mr. G. W. Smith, A.M.I.C.E., of Port Elizabeth, he went to St. Andrew's College, Grahamstown, for further study, going thence to Johannesburg, where he became chief assistant in the office of Messrs. Carter and McIntosh until the Boer War, when he served with the 2nd Regiment of Brabants Horse.

In 1901 Mr. McWilliams returned to his profession, entering into partnership with Mr. Victor T. Jones, with their offices in Johannesburg and Port Elizabeth.

Mr. McWilliams was one of the founders of the original Society of Architects of Johannesburg in 1897, a small but enthusiastic body long since defunct, whose members are mostly absorbed into later and larger societies. Besides being a Member of The London Society of Architects, Mr. McWilliams is a foundation member of the S.A. Institute of Quantity Surveyors, and a Fellow of the Cape Institute of Architects. During his partnership, the firm of Jones and McWilliams carried out a large number of buildings, mostly in Port Elizabeth and the surrounding country districts, such as the Harbour Board Stores and Harbour Board Administrative Offices at Port Elizabeth, King Edward's Mansions, The Grey Institute, Port Elizabeth, Port Elizabeth Club, etc., as well as numerous factories and stores, including the United Tobacco Company's factories at Cape Town, several large boot factories and tanneries at Port Elizabeth, and many wool stores at East London and Port Elizabeth.

W. J. McWilliams,
President of the South African Branch of The Society of Architects, 1919-20.

Architects' War Relief Fund Committee.

The helpful work which has been carried on during the war by the Architects' War Committee having now practically come to an end, a new Committee has been appointed to deal with a grant made on the recommendation of the Government Committee on the Prevention and Relief of Distress for the further assistance of Architects. Under the conditions of the Grant, assistance can only be afforded in the case of architects who are able to satisfy the Committee that their present difficulties are solely and directly attributable to the circumstances created by the War.

Special War Examination.

At the Examination for Membership, held in Cologne, on the 16th and 17th October, 1919, the following Candidates satisfied the Examiners :—

Lieut. Charles Thomas Morris-Evans,
50th Brigade, R.F.A.,
Lowland Division,
British Army of the Rhine.

Staff-Sergeant Charles Moore, R.E.,
2nd. Army Headquarters,
British Army of the Rhine.

Sapper Augustus Bryett,
4th F.S.B., R.E.,
British Army of the Rhine.

Lieut. Thomas O'Beirne,
5th H.L.I., attd. 4th F.S.B., R.E.,
British Army of the Rhine.

Professional Etiquette.

The Society of Architects has recently and for the second time circularised local authorities in regard to the advantages to be derived from placing housing schemes in the hands of practising architects. At the same time opportunity was taken to suggest that where local authorities invite architects to apply for housing appointments it should be made clear that the appointments will be made on the merits of the professional qualifications of the candidates only, and that the fees payable will be those agreed by the Ministry of Health for State-aided housing schemes. This proposal was submitted in view of the advertisements constantly appearing in the professional journals inviting architects to apply for housing appointments and to state their terms for carrying out the work. It is hoped that the Society's representations will have the desired effect. At any rate, the local authorities can no longer plead ignorance as to the proper procedure, and if individual architects will, in their own interests, when applying for such appointments, personally support the action which the Society has taken on their behalf, a very different state of things will be brought about.

The letter from Mr. McArthur Butler, Secretary of The Society of Architects, which we print on another page, deals with a matter of considerable importance to architects seeking appointments under housing schemes, and we hope the Society's representations will have the desired effect. But we should be more hopeful if this action had been taken by a body representing a united profession. The need is so obvious that a mere statement of it would seem to be all that is necessary to ensure its being met.—*The Builder*.

Ireland Supports Registration.

At the first meeting of the new Council of the Royal Institute of the Architects of Ireland correspondence from the R.I.B.A. on the subject of registration was considered. The following resolution was passed unanimously : "That this Council is strongly in favour of the registration of architects, and will support the Royal Institute of British Architects in any suitable action they may take in that direction."

Signing of Plans by Registered Architects.

Our Johannesburg correspondent writes that "At a recent meeting of the Witwatersrand Building Trades' Joint Board, at which the President (Mr. P. J. Hittinger) took the chair, among a number of important questions discussed was the question of the proposed amendments to the building by-laws. It was unanimously resolved to support the recommendation now before the Johannesburg Town Council, viz. : that all plans in connection with building work exceeding in value the sum of £200 shall be endorsed by a registered architect. In the opinion of the Board, this measure, if adopted, will tend to eliminate a number of building contractors whose activities operate detrimentally to the vast majority of the community. The necessity of this measure is due to the many unfair practices that are at present operating on building work in course of construction, such as cheap labour, piece work, etc. It is, therefore, considered that supporting such a measure as now before the Municipality will have the effect of securing that the bulk of the building industry will be undertaken through the organised channels."

But why place the limit at £200 ? Surely the principle involved is not so elastic that morals are only taken into consideration beyond that amount. Make it that *every plan* shall be endorsed by a registered architect—*then* we shall support the proposition !—*The Architect Builder and Engineer*, Cape Town.

The Need for a United Profession.

The recent luncheon of The Society of Architects at the Trocadero Restaurant was a well-managed function, the object for holding which was, no doubt, fully attained. It is all to the good that the views of the Society—and of all architects, we may add—on the housing question should be known to representatives of the Ministry of Health, and that the position of architects in relation thereto should be clearly understood. But what is to be regretted is that the body which was entertaining was not fully representative of all the architects of the country, and that it could speak only for its own members. In one sense, of course, it did more, as any useful work carried out by one society on behalf of its members is generally shared by other members of the same profession ; but the immediate result of partial or divided effort by any body of men cannot be the same as where there is unity in aim and action. Thus are the efforts of both the R.I.B.A. and the Society weakened, whereas a united body would be fully representative and would be able to work much more effective as such. A responsible Member of the Society was asked by one of the guests to mention the Membership of the Society. It should have been possible to reply : "All the practising architects of the country," as it is statements of that kind which make the strongest appeal to Ministers and Governments. Architects, we know, are far from satisfied with this state of affairs, but they appear to be too busy to bestir themselves and insist on one thing or another.—*The Builder.*

Building the Right Kind of House.

By Miss Annie Hall, M.S.A.

Women's work in general has come to be more appreciated, and consequently more and more in demand, during the war, and women themselves, by war-time difficulties, have learnt the value of labour-saving in the home. And, as the demands of war brought opportunity, and with it full recognition of the value of the woman doctor's work, so, I venture to prophesy, will the days of peace bring full opportunity, and with it full recognition of the value of the work of the woman architect.

It is not the fault of the architect that women fail to get the kind of houses they want. There are plenty of good architects in England, both men and women, specialists in domestic architecture, who can and do design the right kind of houses that people want, but I wish to say, and to say it most emphatically, that the reason so many unsatisfactory houses are built is that they are built without an architect.

The vast majority of houses and cottages are, or were, built by the ordinary speculative builder, and, although I dislike and deplore his work, I suppose we must admit that he has supplied a want. He builds what he thinks the public wants to buy or rent, and it is for the public to demand something better. The speculative builder works on altogether different lines from the architect. No doubt he does his best, but he lacks the better taste and higher education of the skilful architect, and works for the crowd rather than for the individual.

Architects and Architects.

Architects design their houses in accordance with their clients' instructions and to suit their clients' individual needs. And any woman can and does get the house she wants, provided she has it specially designed for her by a first-rate domestic architect. But she must not expect to get the same good house if she chooses to buy her house from the ready made or even the specially-built stock of a speculative builder. It must be remembered also that there are architects and architects, and I suppose it is difficult perhaps for the general public to discriminate between the good and efficient, well-trained architect and the one with little or no real training or talent for the work.

A clever architect is always able to evolve a beautiful and aesthetic design to suit utilitarian requirements. And as soon as the public realises that it can get the kind of houses it wants by the employment of good architects, the many will employ them where hitherto the enlightened few alone have done so.

The type of woman most fitted for the profession is the strong, well-educated woman, who feels naturally drawn to the profession, with the earnest desire and determination to overcome all its difficulties and to make a place for herself; one who is willing to renounce many of the pleasures of life and to sacrifice all to her profession. I am strongly of opinion that all women entering the profession should have sufficient private means to keep themselves whilst they are working up their practice. It usually takes several years to get established. In no profession is it so necessary to have a few really helpful friends and a host of well-educated, moneyed acquaintances.

The training is necessarily long and arduous. It will take from five to seven years before any student can be sufficiently well equipped to attempt to practise on her own account.

Training and Opportunities.

Except in very special circumstances, I recommend students to take their training partly in a first-rate school of architecture, and partly in an architect's office. This method probably gives the best all-round training. The choice of the school must depend largely upon the special circumstances of each individual student. It is most important to select a school where members of the staff are practical architects. And in the choice of an office, speaking generally, I would give the preference to a high-class domestic architect's office—the smaller the office, within reason, the better—for in that way the pupil is more likely to come into fairly constant contact with her principal, to obtain more individual tuition, and to get a wider range of experience and a better all-round training than in a large office with many assistants, where the work of each is very specialised and departmental.

In a small office she may in time even have the opportunity—if she shows her worth—of dealing with her principal's clients, and the employed builders, contractors, and artist craftsmen, and experience of this kind is invaluable to one who intends eventually to practise on her own account.

The cost of training may vary very considerably, according to the places and methods of training adopted by the architectural student. I believe that every school of architecture in this country is now open to women : this was not so five years ago—before the war. The school fees at the best architectural schools were about £125 for a three years' course. These may have risen with the general rise of everything. The premium for an articled pupil may be anything up to £500 for a period of three years, according to the office selected.

Pupils who have been through a first-rate school of architecture are usually taken into an office at a considerably smaller premium than if they enter direct without any previous training. The reasonableness of this is sufficiently clear. The cost of living during this long training must be added to the other expenses, especially if the student has to live away from home.

The cost of books, instruments, materials, special tuition fees, professional subscriptions, sketching tour expenses, etc., must all be added, and these, of necessity, total a considerable sum.

No Room For Mediocrity.

Only girls who have had a thoroughly good high-class education, up to a university standard, should attempt to become architects. There is no room for mediocrity in the profession. The knowledge necessary to become a first-rate architect is very varied and extensive.

Beyond the requisite knowledge and practice of the various arts and sciences involved, there is required also a good general business capacity, a sound knowledge of the law of contracts, and of all laws affecting the work of building. A wide knowledge and experience of men and of things is desirable. Accuracy, a power of keen observation, and a good memory are all matters of importance. And need I add that the would-be architect must possess the ability to draw, and to be able to convey her ideas and wishes clearly and accurately to other people by means of drawings and written instructions? And last, but not least, the successful architect must have the powers of original thought and original design—with sufficient sound training and innate common sense and good taste to avoid the eccentric in architecture. Mere copyists are not wanted in the profession.

A recent statement has been made by a man architect that, so far, women have "not been especially successful in designing houses." I do not know what has called forth this statement, but if the architect satisfies her clients and herself, surely this is sufficient. The architect works to the conditions imposed by the site and to the wishes and special requirements of the client in each case, and I venture to say that it is not for the general public, or even a brother architect, to judge the plans without knowing all the conditions imposed. The only time when the work of men and women architects may be fairly compared together is when they enter their plans alongside one another in an open competition, where the conditions imposed are alike for all and known to everyone.

Personally, I always hold myself aloof from these controversies about men's work versus women's work. I do not approve of discussing work on these lines. Nothing is gained by them, and harmony is lost. Each has his and her own special spheres of work and special capabilities. I always work in harmony with my brother-architects, and anything which is calculated to stir up strife or ill-feeling between men and women architects is to be deprecated.

May I add that I shall be pleased to give advice to any girl who wishes seriously to enter the profession?—*The Globe.*

Women and Housing.

A Sub-Committee of the Housing Advisory Council has reported that "women should have an opportunity of expressing their opinion on the proposed lay-out of houses to be erected by local authorities, and on the proposed house plans, including the internal fittings, lighting and heating." This is, of course, as it should be, but it seems to us a little belated. However, Dr. Addison has embodied this advice in a circular which he has sent to the local authorities, and we learn that the Wigan Borough Council has decided to submit all future housing plans to two women. The ordinary woman certainly knows more about the requirements of a house than the ordinary member of a local Council. She knows the value of ample cupboard accommodation, well-placed larders, rounded corners and labour-saving devices. It does not seem to have previously occurred to Dr. Addison to call in the advice of experts on Housing. Apparently he is unaware of the fact that there are properly qualified women architects, for when asked in the House of Commons last week if he had consulted women architects in connection with his Housing Scheme, he airily replied that no women architects were available. We wonder if he took the trouble to enquire? To our knowledge there are at least three properly qualified women architects, who have passed the full professional examinations, who are recognised members of the profession, and whose names appear in the professional registers. We should like to test the accuracy of Dr. Addison's statement that no women architects were available. Was he ignorant of their existence? The Society of Architects, which is open to men and women on equal terms, could have dispelled this ignorance, and have supplied him with full information on the subject. —*The Vote.*

Architectural Unity in France.

The project proposed by the Société Centrale des Architectes Françaises, looking toward the amalgamation of the principal French architectural societies, has become an accomplished fact, the program for unification as put forward by the Société Centrale having been formally adopted by the Société des Architectes Diplômés, and the Association des Architectes Provinciales. Undoubtedly this marks an important step in the history of modern architectural practice in France. Divided councils and cancelled effort were too clearly condemned by war to let the lesson pass unnoticed. Architectural unity—a world-wide unity—is the program of to-day, and toward the attainment of that unity the profession should work unceasingly.—*The Journal of the American Institute of Architects.*

Unity and the Future.

The New Year is eminently a time not only for making new resolutions and scrapping old ones, but, further, for endeavouring to suggest new ideas which may lead to the adoption of some constructive policy for the settlement of certain questions affecting the future of architecture.

No attempt shall here be made to forecast what the long-delayed report of the R.I.B.A. Committee on the future of architecture will reveal, if and when it is published. It is safe to infer, however, that the problem can hardly have been the subject of prolonged inquiry without touching more or less deeply on the question of professional unity and the future relations of the R.I.B.A. and The Society of Architects.

The somewhat cryptic utterance of the R.I.B.A. Council shortly after the election of its President, Mr. John W. Simpson, that no effort would be spared to bring about unity in the profession, or words to that effect, seems to foreshadow a " certain liveliness " in the direction of a further effort towards unity by bringing these two bodies into closer relationship. Some people are even bold enough to see in the recent suspension of the R.I.B.A. " blackballing by-law " another indication that the decks are being cleared for action very shortly. All this is pure speculation, and what we have to do is to deal with the present situation as revealed by the existence of the two architectural bodies, each representative of a section of the profession differing somewhat in its lines of thought from the other on certain questions, such as Registration.

The Bargain of 1911.

The first serious attempt at unity between these two bodies was made in 1911, when, after lengthy negotiations, a bargain was struck between the Councils of the R.I.B.A. and of the Society for the absorption of the Society into the R.I.B.A. conditionally on the Institute's giving a pledge that it would pursue and conduct a Registration Bill until it became an Act, the general principles of such Bill having previously been agreed between the parties. The general body of members of the Society honoured their Council's pledge, and were on the eve of ratifying it when the R.I.B.A. Council found that their charter would not admit of the bargain.

The next step was a proposal by the Institute's Council to obtain the necessary powers under their charter to enable them to carry the matter further ; but the proposed line of action did not commend itself to the Society, and in all probability there would have been some contention over it had not the war broken out, and the general body of members of the Institute tied the hands of their Council by insisting that they should not consider contentious questions during the war. In the intervening years the Society has increased in membership and in influence, and has largely extended its activities in various directions. The two bodies are running on parallel lines with exactly the same general aims in view, and are overlapping each other in the methods adopted. Both are examining bodies and keen supporters of architectural education, each of them publishes a Journal and other literature, each is engaged in upholding the honour and well-being of architecture and architects, and each, by taking independent action in these and other matters, advertises the fact to the public that there are two architectural bodies, each fulfilling similar functions, and thereby spending a great deal of time, energy and money in doing separately what might with greater advantage be done conjointly.

DIVIDED OPINIONS.

Whether it is best for the future of architecture and architects that there should continue to be two distinct architectural bodies, and, if not, whether they should be linked up or amalgamated, are questions on which professional opinion is still divided. There are those who hold strongly that the Society serves a more useful purpose as a separate entity, and that if the Institute swallows the Society the former will become gorged and relapse into a state of coma. Others favour a scheme of federation, which would preserve the autonomy of each body, as indicated in a proposal put forward by the Society for utilising the machinery of the Architects' War Committee for such a purpose ; and it is interesting to note that the latest proposals for a solution of the Irish Home Rule question are on the these lines, viz., to establish two legislatures in Ireland, with a Council as a connecting link. There are others within both institutions who are "whole-hoggers" for amalgamation, while a considerable number are in favour of having two separate bodies. In connection with this a suggestion has been made that the Institute should deal with the art of architecture and the Society with the professional or business side.

WHAT AMALGAMATION INVOLVES.

If the ideal to be aimed at is one powerful organisation, representative of and controlling the whole profession, and either possessing statutory powers or leading up to a Registration Act, it involves inevitably the amalgamation of the Institute and the Society. In such a case the Institute would benefit materially by a large increase in its membership, and therefore in revenue, and by being placed in a position to speak on behalf, at any rate, of the greater part of the profession ; and before very long it would represent the whole, and be able to do public service on a vastly extended scale.

To the Society amalgamation means extinction and the close of a long and active career of usefulness, and that at a moment when its activities and influence are in the ascendant, and while the prospects of future success, both for itself as a body and for the accomplishment of its objects, are rich in promise. It may well be that the Society will hesitate to give up its independence unless it is absolutely assured that by doing so its objects will be attained more quickly and more fully than by any other means. Indeed, the Society would be betraying its trust if it acted otherwise.

As a matter of detail, one of the snags which would have materially held up the original proposal for amalgamation, if proceeded with, was the difficulty of allocating the members of a "single-class" Society to the various grades of membership within the Institute without offending the susceptibilities of one party and the expectations of the other, and this is a point which will require careful handling in any future amalgamation scheme.

THE NEXT BEST THING.

If amalgamation is not the ideal, or if it cannot be attained at once, the next best thing might be a closer linking up of the governing bodies of the two institutions by joint committees and a joint Council on matters of general interest, so that the influence and weight of the two bodies as separate entities may be brought to bear conjointly on matters of general professional interest. Under such an arrangement much of the routine work, such as examinations, professional documents, etc., might very easily be standardised. Failing closer union at the moment, this might be a stepping-stone to some wider scheme of federation in the future.

Assuming that neither amalgamation nor federation is possible, what is going to happen ? One thing is certain, The Society of Architects, now on the threshold of further developments and activities, will continue to attract more and more into its membership those architects, including, no doubt, members of the Institute, who like to be identified with an active and progressive professional body which lays itself out to protect their professional interests and to make the public more familiar with their functions and place in the scheme of National Service.

It is obviously not without some good reason that the Society is receiving these accessions of strength and if the R.I.B.A. Council is in earnest in its endeavours to find some solution to the problem either through its charter or in some other way it will do well to profit by the experience of the past, and not only consult the Society in the early stages of any proposals, but also take steps if possible to restore confidence in the general body of its own members, so that any provisionally agreed scheme placed before them may not share the fate of the abortive negotiations of 1911.—By "OBSERVER" in *The Architects' Journal.*

Victory Scholarship Fund.

The following is a preliminary list of subscribers to the Scholarship, the conditions of which were published in the December issue of the JOURNAL :—

BAINES, G., BAINES, R.P., BARKER, H. W., BARRY, D. H., BECKETT, H. P., BELL, C. H., BETHELL, F., BLACKING, W. H., BLACKWELL, J., BOWELL, T. H,. BRIDGMAN, G., BURGESS, G. E., BUTTON, C. CHARLES, J. W., CLACK, J., CLAESSON, W., CLARKE, H. S., CLARK, J. P., CLAYTON, H., CONNAL, H. J., COOKE, F. J., COUCHMAN, H. S., CULLEY, N. DAKIN, E. A., DARBYSHIRE, F. S., DAVIES, S. E., DAVIS, P. M., DENNIS, E. D. EAGLESFIELD, C. W., EVANS, G. L. FEWSTER, A. E., FOSTER, W. F., FREELAND, J. J., FRY, P. G. GARNHAM, E. W., GRAY, A. HALL, MISS A., HOUSTON, J., HOWORTH, F., HUNTER, M. JOHNSON, T., JONES, H. L. KELLY, H. LAKEMAN, A. LEWIN, G. H., LEWIS, D. IVOR, LISH, J. J., LISTER, B. T., LOCKE, F. W., LONG, A. MANDER, A. E., MARSLAND, S., MCMULLEN, J. F., MIDDLETON, G. A. T., MINNS, S. E., MITCHELL, C., MITCHELL F. C., MITCHELL, F. G., MITCHENER W. G., MONSON, H. C. H., MORGAN, J. B., MOSCROP YOUNG, MOULDING, L. G., MURRAY, J. W. NEWTON, L. J., NORMAN, C. F., NURSE, H. ORANGE, J. PARTRIDGE, E. J., PHAYRE, H., PINDER, F. N., PIPER E. W. HARVEY, PORTSMOUTH, H. C.. POTTS, J., PRICE, F. J. RAYNE, T. V., REID, A., RIGG, P. B., ROBERTS, H. O., ROWLANDS, H. E., RUTHEN, SIR CHAS. T. SADGROVE, E. J., SAINSBURY, F. G., SAYER, H. R., SHARP, R., SHENNAN, A. E., SHERLOCK, E. D., SIMPSON, W., SKIPPER, C. F., SMART, H. C., STOCKWELL, A., STOUT, J. S., SULLIVAN, L. S. TAYLOR, A. J., THORNLEY, W., TREHEARNE, A. F. A., TRELEAVEN, M. V., TRIGGS, B., TYLER, E. A., TUBBS, P. B., VERRAL, E. B., VICKERY, T. S. WALLIS, T., WILKINS, V., WILKINSON, J. R., WILLIAMS, R. J., WILLIAMS, T. G., WILLIAMS, W. H., WILSON, G., WINN, L.

The amount subscribed so far is £180, and if all Members who have not yet joined in the Memorial will do so at an early date, the Society's object will be achieved. The individual donations received have ranged from five shillings to ten guineas, but the measure of the Members' gratitude for Victory, as a body, will be shown by the number of subscribers rather than by the individual value of their gifts.

The R.I.B.A. Studentship Prizes.

The Tite Prize certificate for design accuracy to the methods of Palladio, Vignola, Wren or Chambers, and a sum of £45 for travel and study in Italy has been won by Mr. P. H. Meldrum, of The Society of Architects' Atelier, 28, Bedford Square, W.C.1, and the Grissell Gold Medal and £10 for design and construction, to Mr. F. H. Heaven, of Aberkenfig, a student of the Society.

Review.

ARCHITECTURAL WATER COLOURS AND ETCHINGS. By W. Walcot. H. C. Dickens, London and New York, and Technical Journals, Ltd., London, 1919. Price £3 3s.

The criticism of the sister arts by one another should always, owing to the fresh view point provided, be full of interest, if not of sound thought; yet painters and architects, for instance, are not always mutually grateful for the opinions they sometimes express on each other's work. Purely technical criticism indeed is, by its very nature, of little use in judging a work of art as a whole. But in the case of the paintings and etchings of Mr. Walcot, which combine highly accomplished and accurate draughtsmanship with great imaginativeness and pictorial gifts of an high order, all employed in the portrayal of buildings real and imaginary, the right of architects to an opinion can hardly be disputed.

Mr. Walcot's work is well known on the walls of the Architectural Room of the Royal Academy, and though his appearances there have hitherto been anonymous, the new rule, by which the name of the perspective artist must appear with that of the designer, puts an end to an anonymity which, in the case of his brilliant sketches, was no concealment.

Mr. Walcot is the fortunate man who is able to make the drawings either of the splendours of the past, or visions of the future, which we all long to make—if only we could. Trained as an architect at Petrograd, he possesses a combination of apparently opposing qualities; he has the power of making brilliant impressionistic etchings and water colours which are at the same time impeccably accurate in their draughtsmanship. Impeccable accuracy in that respect is not, it must be admitted, where the impressionist as a rule excels. The lesser men are apt to fall short at times in a manner which a distinguished academician who died some eight years ago, hit off very neatly in an encounter he had with a distinguished ultra-impressionistic amateur (who also is no more), whose work was taken into great favour by certain impressionists of distinction. The academician was looking at some of the amateur's sketches of Venice, and pointed out to him that in a sketch of a Palace he had left out a whole row of windows. "Oh," said the latter loftily, "that is how I see it!" A few days later they were both, with other friends, gathered in a studio and the amateur was playing a sonata from memory.—His memory apparently was defective, and whole passages were omitted with awkward results, but the pianist went on undismayed. "Ah," said the academician, after one particularly bad break, "windows, my friend, windows!"

Now in Mr. Walcot's work there are no missing "windows," no *lacunae* in this sense; such omissions as are made are the result of choice, not of imperfect vision. Not everything is drawn, but everything is there, indicated and understood. His archæology is not too much for his light and shade, nor his detail for his subject.

The book before us contains a selection from his works—etchings and water colours executed during the years 1913-1919, for he was apparently one of those whose labours were not brought to a standstill by the War. The reproductions—excellently carried out—are mostly in monochrome, but a few are in colour and comprise two categories: drawings of actual buildings and imaginings of the past.

The topographical drawings include subjects in London, Edinburgh, and various Italian towns with one or two from Paris. Especially fine is the etching of the Palazzo Pesaro (not Pessaro, as printed in the title) at Venice, for accuracy "colour" and its light and shade. Queen's College, Oxford, and Parliament Square, Edinburgh (this latter much reduced), are also fine, while the view of King Charles' Statue at Charing Cross, with the Hotel Metropole as a background, is not only a lesson in draughtsmanship, but in the art of mixing imagination with truth. And the view of the staircase at the side of Waterloo Bridge—reproduced as a frontispiece to the book—is a masterpiece of suggestive water colour work in which nothing is either missed or over emphasised, while the whole conveys an intense impression of London. The sketches of the Pont Alexandre III, and of St. Mary-le-Strand, London, are well worth attention for their brilliancy; on the other hand, the view of King's College, Cambridge, which is the last in the book, has all the qualities of an early 19th century engraving.

But it is in the section modestly called "Restoration of Classical and other Buildings" that the qualities of imagination and of pictorial gifts, backed by technical ability, produce their greatest effect. Under his hand famous buildings come before our eyes, not with the hard precision of Perrot and Chipiez's restorations, but instinct with life, and leaving space for our own imagination to work in. There is no need to elaborate eulogies; it is simpler to refer to such plates as "The Stadium of Domitian," "The House of a Patrician," "The Atrium," "Anthony in Egypt," or "Babylon," a view which makes one wish that such places as Benares might one day inspire his etching needle. Above all, look at "A Performance at the Colosseum" if you want to get a notion of the size of the interior which the actual ruins fail to give; an idea of how this vastness looked when crowded with spectators. Many have attempted this, Mr. Walcot has succeeded.

It would not be fair to Mr. Walcot to omit a mention of the impress of the War which his book shows. The view of the Forth Bridge with battleships lying in the foreground makes an indirect appeal which one would like to have seen backed by a reproduction of a fine water colour of his shown recently with many of the originals appearing in this book at the Fine Arts Society, of a battleship with the Forth Bridge in the background. More direct is the appeal of the plate inscribed " To the Defenders of Verdun," while a symbolical appeal is to be found in the composition based on Assyrian bas reliefs, and called "Mesopotamia," a small reproduction from a fine colour etching. " Hadrian entering Salonika," and " The Trojan Horse," are also echoes of the War one cannot but think.

The original of " The Trojan Horse " is in colour, but here produced in black and white, while a number of his water colours, beside that which forms a frontispiece, are reproduced in colour. St. Peter's at Rome is evidently a subject much to his taste ; the view on page 113 is particularly fine. The Florentine Fountain, page 107, is an epitome of Italian late 16th century art, bathed in sunshine, and were it in colour, the view of the Loggia Dei Lanzi (not Degli Lanze as printed) would probably give an even more effective impression of Florence.

This method of water colour painting with colour dragged over the surface shows his foreign training, which is not apparent in his drawings. This method shows to most advantage in his sketches of actual buildings, and in his restorations ; to least advantage perhaps in his last year's Delhi perspectives, where one may guess that he felt fettered by being kept within the boundaries of other men's imaginings. The view of the Durbar Hall, for instance, seems to suggest that he had insufficient data for the decoration of the interior, and did not like to supply these wants by his own invention. The peculiarity of style where water colour is concerned is in any case so marked as to make one fear that with the passage of time, as is often the case with artists of all kinds, the peculiarities may end by overwhelming all else. This is the temptation to which man with a strongly individual style is subjected, but the very different style of his " Trojan Horse,"with its deep solid colour, seems to suggest development in other directions, as do also his drawings of the figure—particularly the " Homer " of the title page, which suggests an antique fresco, the " Mesopotamia " already alluded to, and his drawings of ships as shown by the " Venetian Boat Yard " on page 21.

Besides the pictures, the book has letterpress. There is an introduction by Sir Reginald Blomfield, short and appreciative, many pages of " appreciation " (the modern name for favourable criticism), and a very interesting three pages on " The Spirit of Rome," by Mr. Lethaby, to which, in addition to the pictures, we would particularly direct the attention of those who see or acquire this book.—*Ambrose Poynter.*

The Society of Architects' Lodge of Freemasons.

At a meeting of the Lodge, held at the Holborn Restaurant on January 14th, an intimation was received with great regret that the Master, Major T. Stewart Inglis, D.S.O., would be unable to discharge his duties for some time owing to ill-health, due to the effect of active service in the field. Arrangements were made for carrying on the work in his absence, and Mr. Shirley Knight, A.R.I.B.A., and Captain M. G. Kiddy, Assistant Secretary of the Society, were elected as candidates and admitted into Freemasonry. Messrs. T. J. Edwards, Thos. Wallis, G. H. Wenyon and G. Capon were elected as Joining Members. A hearty welcome was extended to Mr. E. E. Barks, A.R.I.B.A., an officer of the Lodge, on his return from military service, and to other Members of the Society and their friends visiting the Lodge. The congratulations of the Lodge were extended to Captain H. W. Lockton, R.E., the Organist of the Lodge, on his appointment to Grand Lodge by the honour of London Rank.

Two candidates for initiation were elected, and another was proposed for initiation and three for joining. The next meeting will be held on Wednesday, March 10th, at the Holborn Restaurant. The Lodge is always pleased to welcome " visiting members" of the Society. The Secretary is Mr. McArthur Butler, 28, Bedford Square, W.C.1.

A Highly Satisfactory Report.

The thirty-sixth Annual Report of The Society of Architects which appears in the current issue of the Society's Journal, is a highly satisfactory one in every respect, the revenue, in spite of greatly increased charges, having been increased by £400, and the balance-sheet shows a surplus of assets over liabilities of over £5,000, and there is no charge on the securities or other property of the Society. The membership reaches a total of 1,269, as compared with 1,170 during the previous year, the greatest increase being of Members, from 982 to 1,102. The only decrease is in the ranks of the students—a natural consequence of the war, and one which we are sure will be a very temporary one, so obvious are the advantages the Society offers, especially in connection with the Beaux Arts Atelier, which it now houses, and which, under its continued encouragement, is more and more establishing a really efficient system of architectural education in this country. The proud record of the war services of the Society's members is a shining testimony of patriotism. No other professional body can show a better, and it is good to know that a "Victory Scholarship" is to be established to commemorate the self-sacrifice of the men whose names fill many pages. A final word of congratulation to the Secretary and officials whose ready recognition of the wisdom of publicity has not been the least of their many activities. No opportunity has been lost by Mr. McArthur Butler and his coadjutors of bringing, not merely before the Professional press, but, as well, before the leading journals, the claims of architects, and their capacity to serve the nation as zealously in peace-time as they have done in war, and thus to enhance the appreciation by the public of the good results obtainable by encouraging in every way the co-operation of the votaries of the Mistress Art.—*Building News.*

HOME OFFICE,
WHITEHALL.

379,781/74

9th January, 1920.

SIR,

I AM DIRECTED BY THE SECRETARY OF STATE TO INFORM YOU THAT THE CONGRATULATORY ADDRESS FROM THE SOCIETY OF ARCHITECTS ON THE CONCLUSION OF PEACE HAS BEEN LAID BEFORE THE KING, AND THAT HIS MAJESTY WAS PLEASED TO RECEIVE THE SAME VERY GRACIOUSLY.

I AM,
SIR,
YOUR OBEDIENT SERVANT,
(Signed) A. J. EAGLESTON.

The Secretary,
The Society of Architects,
28, Bedford Square, W.C.1.

The Institute and the Society.

In his speech at the luncheon given by the Society of Architects to H.M. First Commissioner of Works, the president of the Society (Mr. Edwin Sadgrove) included an assurance that the Society's Parliamentary propaganda to secure the passing of a Registration Act will be actively resumed. For thirty-five years statutory registration has been one of the chief objects of the Society—is, in fact, often said to be the aspiration that called it into existence and that keeps it alive. Not but what the Society fulfils many other functions of approved utility ; but this is fundamental. So long, however, as the R.I.B.A. and the Society act independently in this matter, the only result that can be confidently expected is the recurrent reminder that rival organisations of architects exist. This form of advertisement, however, is extravagantly expensive, and the return upon the investment will be richer in derision than in profit ; for if the general public do not laugh at our absurdity in flinging away money upon the nearly simultaneous promotion of two rival Bills in Parliament, which must inevitably defeat each other, then the national sense of humour must have declined rather seriously. Yet another, and let us hope a final, effort should be made by the Institute and the Society to compose their differences. —*The Architectural Review.*

Restoration of Belgium.

The High Commissioner of Liege has arranged with the consent of the Minister of the Interior, for a competition in Design for restoring the devastated provinces of Liege, Namur and Luxembourg.

The main idea is to secure suitable designs and particulars of methods of construction appropriate to the districts and the use for which the buildings are intended, preserving so far as possible local amenities.

The competition is an open one and will embrace designs for Dwellings (working and middle class), Business premises, Country Houses and Cottages, Town and Village Halls and Schools.

The competition will be controlled by a jury, whose decision will be final. It will be composed of the High Commissioner or his representative, one member of the Royal Commission on Monuments, one delegate from the Federated Belgian Architectural Societies, a delegate from the Union of Belgian Towns and Villages, a delegate from the Commission for improving rural surroundings, the Architectural Director of the Works Department of the High Commissioner and one artist chosen by the competitors.

Prizes of the value of 10,000 francs (say £250), 5,000 francs (say £125), four prizes of 2,000 francs (say £60) and twenty-five prizes of 1,000 francs (say £25), will be awarded to the author of the greatest number of "projects" placed first. A number of Diplomas and gold, silver and bronze medals will also be awarded.

Building owners who wish to build from any of the designs submitted will have to engage the author of the design as architect, he will be paid in accordance with the scale of professional charges of the Belgian Society of Architects, and will share in any special prizes, which may be awarded by the jury.

Before going further into the matter, intending competitors should obtain further particulars from the offices of the High Commissioner, Avenue de l'Exposition, 35, Liege, as an endeavour is being made to get the time for delivery of the designs extended.

Publicity.

Warehouse Design. A summary of the paper on "The need for more care in Warehouse Design," by Professor Adams, appeared in the *Times*, *Morning Post*, *Daily Telegraph*, *Scotsman*, *Glasgow Evening Citizen*, and other newspapers, and was published in full by the professional journals, and by the *Ironmonger*.

Competitions. Notices issued by the Society banning certain Housing Competitions appeared in all the professional journals.

National Housing Scheme. At the invitation of the Editor of the Housing Supplement of the *Times* the Secretary contributed an article setting out the views of the Society on the subject which appeared in a special issue of January 9th, and was favourably noticed by the leading professional journals. On another page of the Supplement appeared an article by F. C. Wade, Esq., K.C., Agent General for British Columbia, quoting at some length the opinions of Sir Charles Ruthen as set out in his paper read before the Society recently.

Notices and very full reports of the Society's "Housing" luncheon, at which Viscount Astor was the chief guest, appeared in the *Times, Morning Post, Daily Telegraph, Daily News, Daily Express, Daily Chronicle, Pall Mall Gazette, Westminster Gazette, Evening Standard, Globe, Evening News, Star, Daily Mirror, Daily Graphic, Daily Sketch, Sheffield Daily Telegraph, Yorkshire Evening Post, Glasgow Bulletin, Financier and Bullionist, Scotsman, Birmingham Daily Gazette, Sunday Chronicle, Sunday Times, Birmingham Daily Mail, Western Daily Press, Notts Evening Post, York Observer, South Wales Argus, York Herald, Manchester Guardian, Western Morning News, Bradford Daily Argus, Western Daily Mercury, Western Evening Herald, Birmingham Post, Sunday Evening Telegraph, Hull Daily Mail, Contract Reporter, New York Times* and other papers, and in all the professional journals.

In the *Irish Builder* the Secretary replies to a letter from the R.I.A., Ireland, in regard to the panel of architects' housing schemes.

Address to H.M. the King. A paragraph stating that the Society's congratulatory address to H.M. the King, on the conclusion of Peace, had been presented and very graciously received by His Majesty, appeared in the *Morning Post, Belfast News Letter, Scotsman*, and other newspapers, and in all the professional journals.

Registration. The spade work of the Society on behalf of architects was referred to in a report of the proposals of the Institution of Civil Engineers for the registration of civil engineers, which appeared in the *Building News*.

Annual General Meeting. Notices and reports of the Annual General Meeting of the Society appeared in the *Glasgow Evening Citizen*, the *Scotsman* and other papers and in the professional journals.

Form of Building Contract. A paragraph in the *Architect Builder and Engineer* of Cape Town purports to hold up the Society's form of Building Contract to ridicule by commenting on two of the clauses separated from the context. It is not humour in its highest form, but serves to expose the critics' ignorance of the subject.

Skyscrapers. The views of the President, Mr. E. J. Sadgrove and of a Past President, Mr. Percy B. Tubbs, on Sir Martin Conway's proposals appeared in the *Evening News*.

Mainly About Members.

An interesting and valuable illustrated article on "The Design and Construction of Industrial Premises," by MR. A. ALBAN H. SCOTT, appeared in the *Architects' Journal* of December 31st last.

MR. E. WALLIS LONG has resumed private practice at 56, East Street, Brighton, after War Department service with the Road Board as resident engineer of the Salisbury Plain and Fovant areas.

Victory House, Cockspur Street, which occupies an important position in Cockspur Street, has a well-designed Portland stone front, with bronze and wrought-iron embellishments. On the main elevation are four bas-relief panels representing "Banking," "Travel," "Industry," and "Commerce." It is a building of nine floors, occupies a frontage of 55 ft. to Cockspur Street, and has a floor space of over 16,000 sq. ft. Owing to ancient light difficulties, the rear of the building is set back at an angle, which results in what is probably the largest roof slope in London. The architects are Messrs. METCALF & GREIG. Victory House was recently purchased by members of the Chamber of Commerce of a neutral country, who are understood to have acquired the premises as a centre of operations for the extension of trade relations with this country. They will incorporate in the building, banking, shipping, tourist, travel and other departments, with a business section. The architects are Messrs. METCALF & GREIG. A photograph of the building appeared in the *Architects' Journal* of December 31st.

New premises for Messrs. Babcock & Wilcox, Ltd., have been built on a site with the side frontages to somewhat narrow streets, so that the building had to be designed with a considerable amount of window space to ensure adequate lighting to all the offices. The building is of skeleton steel frame construction, built on reinforced concrete foundations. The nature of the ground, which is in close proximity to the old Fleet ditch, necessitated the loads being distributed over a wide area. The main elevation to Farringdon Street and the short returns to the side streets are in Portland stone. Westmorland green slates are used in the roof, and the dormers and cresting are being executed in copper. The remaining elevations to streets and lighting courts are being carried out in white glazed bricks throughout. The windows are steel casements, and the internal joinery is principally in teak and mahogany. MR. VICTOR WILKINS is the architect.

MR. HENRY TITUS WAKELAM, whose sudden death at Oswestry has been announced in the Press, had been a Member of the Society since 1892. He was also a Member of the Institution of Civil Engineers, and a Past-President of the Institution of Municipal and County Engineers. Mr. Wakelam obtained his early professional training under the late Mr. Benjamin Baker, of Willenhall, to whom he was articled in 1883. He was responsible for the design and erection of shops, offices, and houses in King's Lynn; warehouses and residences in Oswestry; Public Institute and Hospital at Earsdon; and other work. During recent years he held the responsible position of county architect, surveyor, and engineer for Middlesex.

Mr. Wakelam was sixty-two years of age, and his death, which took place whilst he was staying with friends at Oswestry, will be greatly regretted by all who knew him.

For the Information of Members.

The Library. Gifts of books on Architecture and allied subjects, and Donations to the Library Fund are invited. Books from the technical circulating library are sent through the post, or may be obtained on loan personally by Members on application. The Rules relating to the use of the Library are published in the Year Book, and a copy of the Catalogue may be obtained (free of charge) from the Secretary.

NOTE. The Library is closed for the time being, pending the completion of alterations and decorations to the premises. Notice of re-opening will be given in these columns in due course.

Book Reviews. The Secretary will be glad to receive the names of Members who will undertake to notice books sent for review. They are asked to mention the subject with which they would prefer to deal.

Professional Appointments. Members seeking appointments or requiring Assistants should notify the Secretary of their requirements so that they may be entered on the Register. There is no charge.

Subscriptions. Annual subscriptions are due and payable in advance on November 1st of each year, and Members are invited to make use of the Bankers' Order Form method of payment where possible. A form for this purpose may be obtained from the Secretary.

The Examinations. The qualifying entrance examination for Membership is held in April and October. A copy of the syllabus may be obtained from the Secretary. The Graduateship examination has been discontinued in view of the new proposal for grading the Membership.

Awards and Scholarships. Particulars of the Victory Scholarship, the Travelling Studentship, the Architectural Scholarship, and other awards will be announced in the JOURNAL from time to time.

Professional Advice and Defence. The rules and regulations for legal assistance to, and professional defence of Members of the Soiecty are set out in the Year Book together with the Society's Code of Professional Ethics.

Publicity. The Society has a special department for securing publicity in the Press and elsewhere relating to matters in which the Society and its Members are concerned. Members can greatly assist the work of the Society by keeping the Secretary supplied with cuttings from local newspapers or other information of interest to architects in general and Members of the Society in particular.

Beaux Arts Atelier. As soon as the extensions to the Society's premises are completed the Members will be informed of the advantages to be derived from entering the Atelier and the qualifications necessary for doing so.

Changes of Address. Members are requested to notify the Secretary at once of any temporary or permanent changes in their address so that the Registers may be kept up-to-date and the difficulties avoided which arise when communications to Members are returned through the post.

Masonic Lodge. The Lodge meets on the second Wednesday in November, January, March and May, at the Holborn Restaurant. The present Master is Major T. Stewart Inglis, D.S.O., R.F.A., and the Secretary is Mr. C. McArthur Butler. Visiting "members" from other Lodges are always welcome.

Communications. All communications should be addressed to

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"Pisé de Terre and its Possibilities."

By Clough Williams-Ellis*

During the past few months a great deal has appeared in various newspapers about pisé de terre. Much information has been given, but not all of it is accurate. The following is the veracious history of pisé de terre, as far as I know it :—

We first hear of pisé de terre in Pliny's "Natural History," where he remarks that Hannibal, three hundred years before, had built watch-towers in Spain of earth rammed between shutters, and that these towers still stood intact. It has been widely used in the district round Lyons, where houses three storeys high, and even churches are built of pisé. Recently, it has been employed in India, in New South Wales, and in Rhodesia, and in 1915 experiments in pisé were made in this country by Mr. Strachey, at Newlands Corner, Merrow, near Guildford. This year I have built a pisé small-holder's house and steading for Mr. Strachey, and it is to the interest aroused by this house and the publication of my book that the curious paragraphs above referred to have been mainly due.

Pisé is merely earth to which nothing whatever is added. The earth is dug and thrown between wooden boards and rammed till it is perfectly hard and compact—until, in fact, what is practically an artificial sandstone has been created. The earth is thrown into these shutters in layers of 5 in. or 6 in., and then rammed (by men standing inside the casing) until it is thoroughly solid, before another layer is added, when the mould is full of rammed earth, and the rammer no longer makes an impression, the casing is taken apart and re-erected on the top of the wall just completed.

As to the soil, if it is too sandy it will fret away, while a pure clay soil will crack in drying, and both these exceptional extremes should, therefore, be avoided. Any other soil, however, is more or less suitable, and even clay and sand may be used if they are mixed together, the peculiarities of the one counteracting those of the other. The best soil of all is probably the heavy red marl that is found fairly widely distributed.

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* *A paper read at the Garden Villages Conference at Croydon on January 26th, 1920.*

The plant for pisé building consists of two pairs of casing or shutters, with stops that may be inserted in such a way that gaps in the walling may be left for doors and windows ; a "corner-piece," and "end-piece," and a set of two or three wooden rammers. It is most important that the shuttering should be perfectly rigid and true, as upon it rigidity depends its ability to withstand proper ramming, and consequently the straightness and strength of the walling. The shuttering described in the old books upon pisé was extremely primitive, but seems to have served well enough.

For the construction of the mould take several planks, each 10 ft. long, of light wood in order that the mould may be easy to handle. Of these planks, something over 1 in. thick after planing, fastened together with four strong ledges on each side, the mould must be made 2 ft. 9 in. in height, and two handles should be fixed to each side.

The instrument with which the earth is rammed into the mould is a tool of the greatest consequence. It should be made of hard wood, either ash, oak, beech, walnut, etc., or what is preferable, the roots of any of them.

Pisé building lay off the great main stream of constructional activity ; and the enterprise and ingenuity lavished on the perfecting of other building gear and material passed pisé by, leaving it undisturbed in its quiet backwater, a primitive system still with its primitive tackle.

I myself, however, designed a new plant, which is a considerable advance upon the one described above. It is with such a set of shuttering which I called "Mark V." that the walls of the Newlands Corner Cottage were built, but in the light of the experience gained in putting up this building I have designed "Mark VIII.," which will, I think, prove as much superior to "Mark V.," as "Mark V." did to the aboriginal shuttering. "Mark VI." and "Mark VII." were abortive designs that got little further than the drawing board.

A recent building has, however, been erected where no special made shuttering whatever was employed, the timbers destined for use in the floors and roof being erected as a temporary casing within which the earth was rammed in the usual way. This method proved eminently successful and will no doubt be found economical in certain cases.

Next to the use of the rigid casing, the success of the work depends upon the freeing of the soil from the larger stones and upon its thorough ramming, but provided it be conscientiously carried out the work is extremely easy and almost all of it—even the adjustment of the shuttering—can be carried out by unskilled labour. The pisé walling for the house at Newlands Corner was put up, under my supervision, in twenty-six days by two unskilled men—men who had had no previous experience of pisé work or, indeed, of any other building. The cost of the pisé house-walls came to under £20, and this sum was, of course, merely the wages bill for the two men, the material used for the walling being dug on the spot. The estimate for the same run of walling in brickwork was over £200. At Newlands Corner I used a brick footing and a slate damp-course, but this was an unnecessary extravagance. In later buildings the pisé is imposed direct on the concrete, save for the intervention of a bitumen-sheet damp-course.

The use of a pliable damp-course in place of slates does away with the brick-course that was necessary above the latter to protect it from fracture by ramming. When the walls had been up for less than two months they were dry enough for the house to be occupied with perfect impunity. It was noteworthy that the walls of the first rough shed put up by Mr. Strachey in 1915 are now so hard that it is difficult to make any impression on them with a knife or a hammer.

It is stated in the old books that it is well to protect pisé by good eaves, and I therefore obediently took this precaution in designing the small-holder's house. Mr. Strachey, however, in building his shed left the gable end entirely unprotected, where it was further exposed to the drip of a tree. The wall has not suffered in the least, and no damp whatever has penetrated.

When they are up, the walls can be plain colour-washed, cement-rendered, plastered rough-cast, or sprayed with hot tar, and subsequently colour-washed on top. I think that with improved shuttering and the smooth surface that results, it will be possible to paper the walls directly without the interposition of plaster.

It is, perhaps, unnecessary to insist upon the non-conducting properties of earth to a nation which banks up its potatoes in winter. Pisé, as is to be expected, compares extremely favourably in this respect with all the materials used for walling, quite apart from the extra thickness usually implied by its use.

Everyone, except a certain section of the Press and its docile public, is alive to the imperfection of wood houses in regard to heat and cold, even if suitable wood for the construction were really available, which is most emphatically not. Aware of our own timber shortage I was still considerably suprised by receiving a number of letters from Canada and Scandinavia stating that, owing to the lumber shortage, the freight difficulties, and the various drawbacks attaching to the log or frame houses, the possibilities of pisé building were receiving wide attention, my book upon the subject, for instance, being in process of translation into Swedish at the hands of a Swedish scientist, who will, I am sure, add greatly to its usefulness.

The " Wooden House " Press, however, had told us to turn our eyes to these very countries, for from thence should come our salvation.

When one finds that they are themselves turning to pisé as an alternative to the use of their gravely reduced timber stocks, one is tempted to rebuke the optimists not so much for barking up the wrong tree as for attempting to climb one that is not there.

Certain paragraphs in the Press appear to have given the impression in some quarters that there was a sort of secret or patent about pisé. There is, of course, nothing of the sort : it is, indeed, the simplest of all methods of building, and at least thirty centuries old.

All I have so far contributed personally are certain minor improvements in plan and procedure that I hope may very soon be eclipsed by the ingenuity and enterprise of others.

A trial pisé building has stood for four years without any external protection whatever. It has suffered no damage and grows continually harder. For the sake of appearances, however, and for the better preservation of the wall from chance injury whilst still " green," a coating of some sort may be deemed necessary.

To the common question, " where does the earth come from," I would reply, " from wherever you will in the immediate vicinity," according to the natural fall of the ground and the final levels desired. You may either dig a pit, or lower the general level over a comparatively large area. The small amount of excavation that the walls of even a considerable house demand is somewhat suprising.

In conclusion, I should like to quote a letter written by a Prophet of Pisé to the *Ecclesiologist* in 1848.

It was discovered by Mr. Goodhart-Rendel and reproduced in the *Spectator*. Apparently it was a voice crying in the wilderness, for I have so far failed to discover a single authentic example of pre-armistice pisé-building in all the three kingdoms, saving at Newlands Corner.

PISÉ AND COB BUILDING.

To the Editor of the *Ecclesiologist* :—

DEAR SIR,

In the paragraph prefixed to the article on pisé building, you say that you will be glad of information as to whether the pisé building is not common in Devonshire and the West of England, and known by the name of cob-building ; and I am happy to tell you that it is utterly different both in substance and manner of construction, and as far superior to it as solid masonry is to rubble walls. . . . The substance of cob is loam or clay mixed with straw. It is put on in a moist state by means of shovels, so that a course can hardly be raised higher than one foot or one-and-a-half feet at a time, without risk of bulging, and then must be left some time to become consolidated before a second course can be imposed upon it ; and when the whole wall is built up it must be pared down to make the surfaces true and even, whereas pisé gravel is rammed in frames, is perfectly dry, and comes forth from the frame a hard and solid and dry mass, and the wall may be carried to its full height without any interruption or delay, except what arises from moving the frame. The surfaces are quite even and perpendicular, and nothing remains to be done but to fill up the holes, where the bolts passed, which is done by ramming in fine pisé gravel on both sides at the same time, with cylindrical pieces of wood of the size of bolts.

The cob walls being put up wet, no bond timber can be inserted for door posts, window frames, or floor joists, but in the pisé walls these may be put in as the work arises, wherever they are wanted. One could pull down cob wall; but it requires iron to pick down the pisé gravel, unless it is previously wetted. Vermin can make their way through cob, but no animal can penetrate the pisé. The one kind of work is tedious, from the necessity of allowing the different courses to dry, and is often unsatisfactory from the fissures that occur from the inequality of the substance that is used, according as it is worked up more or less stiff. The other suffers no interruption, and if there be any fear of fissure, it can easily be guarded against by laying strips of deal 3 ins. wide and one-half or three-quarter inches thick. The one is feeble and perishable in comparison, the other is said by Pliny to be eternal. The only thing I can compare with pisé is the old grouting, which was formed by filling frames, such as the pisé frames, with flints or other stones, and then pouring in upon them hot mortar, so liquid that it will make its way into the interstices and form a compact mass.

I am, etc.,

THE COMPILER OF THE ARTICLE ON PISÉ BUILDING.

(We perceive that we did much injustice to the pisé building advocated by a correspondent in our last number by hinting that it might be the same as the cob building of the West of England.—ED., *Ecclesiologist*).

In his spirited refutation of those who will insist on confounding pisé with cob, the anonymous champion of " The Dry Earth School " has my heartfelt sympathy. For a Dry Earth method pisé certainly is, and in this country is, therefore, essentially a summer craft. Those enthusiasts who will insist on attempting mid-winter building are not likely to achieve very encouraging results and are to be admired for their enterprise rather than their sense.

The Society of Architects Lodge of Freemasons.

The next meeting of the Lodge will be held at the Holborn Restaurant on Wednesday, March 10th, at 4 p.m. Visiting "Members" from other Lodges will be heartily welcomed, and are invited to communicate with the Secretary of the Lodge, Mr. C. McArthur Butler, 28, Bedford Square, W.C.1.

Report on the Education of the Architect in the U.S.A.*

By Robert Atkinson, Head Master of the Architectural Association Schools.

After visiting the States the broad impression left on the mind is that the Mistress Art *lives* in America as it lives in France, and in no other country in the world. That is to say, that in America, as in France, Architecture is a national plant with a national flower, cultivated by a profession, but drawing its life from the people.

In France, the "genie latin" has produced its full flower for centuries. In America, the plant is of recent growth, yet the flower is profuse. The two cannot justly be compared ; but in the States, the progress of architecture from sterility to bloom has been of so remarkable a character that it is worth a close study. One is tempted to wonder whether or not some powerful potion has been discovered which, when administered to the student while young, has been capable of producing a faculty for the art amounting to genius. Human nature still looks upon a man of genius with superstition, and delves into his past to discover his causes and to formulate as it were his chemical composition. Or it is stated, on the contrary, that a genius is a law unto itself. But when a country like the States produces a seemingly endless crop of geniuses, there is some excuse for associating some powerful cause with such an unusual result.

What if the name of the potion is Education !

In the development of modern architecture in America four distinct phases can be traced.

The achievements of the first phase (roughly during the last years of the 19th century), were mainly due to a number of remarkable men whose names are well-known and whose antecedents need not concern us here. They were men of culture and taste and of great business ability. They combined the versatility of the French with the practical character of the Anglo-Saxon. Their work was scholarly without being pedantic. They kept carefully away from Grand Prix projects and, generally speaking, were more "academic" than "modern."

The second phase was characterised by the growing influence of the styles and methods then prevalent at the Ecole des Beaux-Arts in Paris. French masters were imported. The fetish worship of a "style" began, and projects which in France were merely paper problems were in America translated into brick and stone.

The followers of Beaux-Arts methods, or of the Beaux-Arts Style, as it was loosely called, soon came into violent conflict with the supporters of the old American Technical School system. Under this system which had developed during the last century the architect was looked upon as little more than the handmaid of the engineer. The earlier architectural schools were denied separate existence and under the ægis of engineer professors were divorced from the arts and given a distinct tendency towards utilitarianism.

The Beaux-Arts supporters, however, went to the opposite extreme, and a certain re-action against them set in which prepared the way to a compromise.

In the third phase this compromise was carried out between the Engineering and the Beaux-Arts methods, and the resulting educational system has had many advantages. It consisted roughly in the enlargement of the department of architecture in the great technical schools, in the employment of Beaux-Arts masters to teach design and the maintenance of an engineer as head of the department. Practically all existing schools have now been working on this system for ten or twelve years, and its results in the practice of architecture are worth examining.

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* *From the Journal of the Architectural Association.*

We must examine them in order to understand the fourth phase which is now beginning.

The most striking result is the *rigidity* of the type of architecture produced by practising architects. Many types of buildings have reached an accepted "Expression," but that expression suggests too much a standard to which the designer has been careful to adhere, rather than the standard of his own ability. It is too often bookish in character and of second hand value. This is specially noticeable in a lack of originality in details, which invariably show the effect of some standard book, and differ in quality only with the taste of selection. In many of these buildings there is too often displayed a lack of that progressive thought which alone makes for original design when face to face with the practical problem.

This is directly traceable to those schools where taste is educated as selective rather than creative and where construction is largely developed independently of design.

Practising architects complain of the lack of practical knowledge in assistants fresh from the schools. Their knowledge of theoretical construction is adequate, but they have not been taught to apply it to practical problems, nor have they learned the important factor in design involved in economy of material. But they make no complaints about the designing and drafting powers of students, and, indeed practising architects are in a measure to blame for deficiencies in the schools since they continually engage assistants for their "turning out" capacity. It is not unnatural that a demand creates a supply, and that students should attach most importance to the "stunts" in rendering and drafting which bring them ready employment.

This action and re-action between the schools and the profession certainly tends to stereotype design.

It may be asked how this apparent evil can be reconciled with my early remarks on the vitality of Architecture in the States. To this I would reply that the standard imposed is an uncommonly high one and that the power to impose it so widely at a certain stage of national development is itself a proof of the vitality of the art. It must be remembered that in America architecture is national, and what more natural than that a nation, like an individual, should reach a certain stage in which a joy in formalism is but a symptom of youth. The plant is as full of life as ever. Everywhere in America one is struck by the interest taken by the public in architecture, and more important still, in good architecture. The public are no doubt crude in appreciation, but they are enthusiastic. The profession recognises its responsibility to the public, and in spite of criticism it is true to say that architects are on the whole well educated. Good architects exist in great numbers, and the proof of the tie between public and profession lies in the fact that opportunities occur every day for good architects to exhibit their powers.

It is not surprising therefore to find that architects are awake to constructive criticism and by no means unaware of their dangers.

In the fourth phase, now beginning, we find Architecture in the States "awake and aware," and as a result great pressure is being brought to bear on the whole question of education.

The American Schools, based on a combination of the system of the Beaux-Arts and the existing technical schools, have certainly done a great work, but instead of tending to heal the breach between the æsthetic and the constructive sides of Architecture they have tended to develop each separately. The breach remains and threatens to yawn the wider.

Architecture from an educational point of view presents this acute difficulty. It must be taught as a compromise between business and art, yet the human temperament leans as a rule to one extreme or the other. In the practice of Architecture a compromise of some sort between the two is a necessity and is realised as such, but not so among students who have not immediately to build for their living. Inevitably temperament leads them this way or that, and the average line in architectural education can never be anything but a compromise which satisfies only a small proportion of students. And the more the business and scientific sides of the building develop on the one hand, and on the other the fine personal enthusiasm of the artist increases, the more difficult will the compromise become. The effect of this liability to fall between two stools has already reached from the schools to the profession. The danger ahead is that Architecture should become logically functionless. The facts are undeniable that the builder *can* build without an architect, and the decorator can decorate. The engineer can construct without an architect. The modern architect makes designs and then endeavours,with his thoughts and instincts in the past, and within the limits of his academic training, to fit in all the accessories and at the same time produce a standard æsthetic effect. But the great creators of the past were men who brought great personal taste to bear upon an intimate knowledge of the materials of their time. That is to say, they were organically connected with the building movement of their day, and their faith was in the future.

The triumph of the American schools has been in the region of culture. They have connected architecture soundly with the cultural development of their nation. (Can we say as much for the English schools). But they have failed to connect on the other hand with the vast contemporary building movements. The architects' relationship with building remains a cultural liason rather than an organic connection and this is felt to be the weakness of their position.

What is the remedy? It must lie with the schools. In the more progressive schools it is now recognised that general culture and social study are of more real value to students than a culture based particularly on the knowledge of classic forms. This is important. Building movements are intimately connected nowadays with social and economic forces and a study of the social aspect of building on the part of the student would involve the æsthetic aspect from a new point of view.

Authorities differ as to how far *general culture* involves a knowledge of classic proportions and all that they stand for. The defenders of all systems involving the antique maintain that it is but a means to an end, the end being that the student should finally be in the best position to step out of the vehicle and think for himself. But here the experience of the American schools of the past ten years seems to point to the fact that a close training in Greek culture and its derivatives has *not* led to æsthetic freedom, but has tended to stereotype. Architects have not been led to think for themselves.

What is essential taste? : and can it be developed without involving æsthetic preconceptions which may no longer apply to modern materials? Two or three of the newer Western schools are endeavouring to get behind the "book fetish" and to produce organic architecture by a direct return to constructive necessities, in other words by the endeavour to express a building function with as little change as good taste will admit from structural requirements. This is an admission that new constructive necessities are capable of involving their own canons of art, if the architect has the faculty of imagination. Education should therefore be concerned both with the development *and liberation* of imaginative effort. Opinions are divided as to the best methods of achieving this dynamic factor. In one or two of the schools students are given problems in abstract design. This is an interesting experiment and goes to the root of the educational problem, but as a general rule the progressive schools still admit the necessity of sound study in the history of architecture and a knowledge of the styles, and differ only as to the psychological moment at which these studies should be diverted to the new channels.

All are agreed, however, that the new channels must involve practical work on building. One extreme view is that practical work should begin at the beginning of a student's career. This implies that if the new conditions of construction and materials are the most important factor in the architecture of the future then a student's initial instincts, his first and most powerful impressions, should be of these things. It is, of course, but a new statement of the old "art and craft" principle, and raises difficulties of the same kind but on a larger scale. The more moderate view is that if a student has some theoretical knowledge he is in a better position for observing and understanding practical processes. Theoretical and practical training should go as far as possible hand in hand.

For us in England the lessons of the American Schools are far-reaching. First there is the danger to be avoided of a long school course becoming a powerful magnetic field separate from the profession, capable of setting a high æsthetic standard, but tending to turn out technicians or stylists rather than architects. It is of vital importance that some contact with practical work be found for students during the school course which is now supplanting the pupilage system. A student's long vacation should be spent not on measuring up old buildings but upon modern building work in the company of the clerk of the works or resident architect. For this purpose the profession should help the school authorities and be willing to take students on to their jobs. An organisation could be developed and students should be compelled to spend a minimum number of months on practical work before being admitted to examinations. Lectures on construction and materials should be given in relation to this organisation.

Secondly we have to benefit by the experience of the American Schools themselves in their æsthetic method. The lesson is that an unintelligent following of the letter rather than the spirit of the Beaux-Arts will not give the essential imaginative training necessary for grappling with the practical problem of modern building.

It would seem that it is more important for a student to learn to be wholly a builder than half an artist and half an engineer. To that end education should be directed. Let taste be educated as imaginative and creative rather than selective. Let our knowledge be of modern social conditions rather than of ancient æsthetic conditions, and here we have to hand the whole field of communal planning. Let our experience be of the forms and strengths of the materials we ourselves are to employ in the future.

Thus our architect of the future will be a man of knowledge familiar with social problems, a man of taste but a judge of rugged as well as of delicate beauty: a man with a sense of colour, familiar also with the laws of proportion and composition. Then given an artist and philosopher, let him become a builder, a supervisor of labour in direct touch with materials, their possibilities and limitations.

By such a training we might evolve a new generation of real architects who could handle the problems of modern building in direct relationship with cause and effect.

A Basic Scheme for the Development of London.

By G. A. T. Middleton, Past Vice-President.

A little more than nine years ago it was my privilege to read a Paper before this Society, in which I drew attention to the possibility of utilising the present high-level railway, which connects Cannon Street and Charing Cross Stations, as a broad roadway, while substituting a new station on the South of the Thames for those which would be destroyed. As then presented, the scheme was crude and nebulous. If I remember rightly it was hurriedly prepared, though I now forget upon what emergency, and shortly afterwards I was taken ill, and remained unable, for that and other reasons, to do anything more in the matter until now, when the Council has kindly allowed me to revive it. How much further it may be possible to go in a single evening remains to be seen.

Elementary as the proposals then were, however, they attracted much attention and received a considerable measure of support, particularly in the Press. The congestion of London was notorious, and anything which offered a means of its amelioration was certain of at least some consideration; but apparently the time was not ripe for dealing practically with the evil upon a sufficient scale to effect a remedy. Now I believe that the time has come, for much has happened in the intervening period to prepare the way.

Even before 1910 there had been several schemes propounded for the substitution of a handsome road bridge at Charing Cross for the existing hideous railway bridge, and the transference of the station to the other side of the river, the first of these, I believe having been published in the *Building News* when the roof over the station fell down in 1905. The æsthetic argument was almost the only one advanced, no great relief to traffic congestion could be shown, and the interests of the dominant South Eastern Railway were in opposition. There have been further schemes brought forward since, some of them of great interest and value, but all with the same limitations or nearly so, and nothing has been done.

Another partial solution of the problem, also projected in 1910, has been that of erecting an additional bridge across the river opposite St. Paul's Cathedral. Powers for this were sought by the Corporation of the City, who undertook to bear the cost, and work was commenced upon its approaches, but abandoned shortly after the outbreak of war. This may prove fortunate, for although it would provide additional communication, much needed, between North and South, it would still further congest the already congested points at both its extremities, viz., the junction of Cheapside with Aldersgate Street, and the Southern road junction at the Elephant and Castle ; and it would do this at great cost, at the risk of damage to St. Paul's, and at the certainty of delaying, if not preventing, the adoption of anything more comprehensive.

And something exceedingly comprehensive is demanded. It is not a mere matter of undue concentration of traffic at a few points. What is wrong is something infinitely greater : excessive congestion of the heart of London itself. Expansion of the heart is vital ; and next to it, intimately connected with it, is the immediate necessity for better arterial means of communication between the heart and the great body of outer London, not in one direction only, but in all.

All this, I venture to claim, my scheme either directly provides for in itself, or renders possible and even inevitable : at great cost—fabulous cost—certainly, but also at fabulous profit which would justify the cost.

THE SCHEME GENERALLY.

The engineer who laid out the South Eastern Railway recognised that the nearest route between the City and the West End of London lay along a chord which cut off the bend which the river takes, and he set out his loop line from Cannon Street and Charing Cross accordingly, crossing the river twice. He avoided undue interference with the main highways of South London by carrying this loop-line upon arches, and at the same time he raised it to a height which provided ample fairway under the river bridges, and also brought his great termini to the level of the Northern river bank or a little higher ; for both at Cannon Street and at Charing Cross the stations are reached from the main roadways up inclines.

With efflux of time and the coming of the Underground, this loop has largely lost its value as a railway, for few persons indeed now use it in order to pass, say, from Whitehall to the Mansion House. But if it were converted into a roadway it would be invaluable. It would be worth the outlay over its purchase and conversion, even if there were no return—a point upon which I shall speak later—if it did no more than provide an alternative East and West traffic route to those already existing along Holborn, Fleet Street and the Embankment. But it would do a great deal more than this, for by means of easily contrived slope ways on either side, it would open up the whole of the land within the road and the river, and a great deal also to the South of the road—land which at present is covered by mean dwellings of slum character. The heart of London would there find the means of expansion for which it is now panting !

The sloped ways Southwards would also allow the road to be used by much of the through North and South traffic, which the existing bridges and their approaches are inadequate to carry.

But even this is not all. There is another railway bridge over the Thames at Blackfriars belonging to the S.E. & C. Railway which is approached upon arches at a higher level still, and is connected by curves, very rarely used, to the loop-line. The main double track across this bridge is used mostly for through goods traffic, and is of importance, but it would not be an impossible feat to utilise the curves and to convert the rest of the bridge into another roadway connected with the first, carrying it right through Blackfriar's Station and opening into a Circus in front of the Central Criminal Court. There would also be a sloped approach from the bottom of Queen Victoria Street, where St. Paul's Station now stands.

In this way three new bridges for vehicular and foot traffic would in all be provided across the Thames, each of them wider than any of the existing bridges, without obstructing the river more than at present and at little, if any, structural cost, except for embellishment.

South London would be fully opened up, and ample means of both local and through communication established. London's heart, which is the nation's heart, which is the Empire's heart, would be able both to expand and function again; it would be worth the cost.

In order to recoup the expenditure I suggested in 1910 that not only would the valuable sites released by pulling down Charing Cross, St. Paul's, Blackfriars, Holborn and Cannon Street Stations become available for sale or lease, but that there would be ample room upon the bridges for shops upon one side, or both sides of the roadway—which, by the way, would have incomparable river views, making them of great value. Further than this, I advocated the purchase of small property on each side of the new high level road, and the creation of parallel low level roads, with shops rising therefrom, with both low and high level frontages, and with storage accommodation in the existing arches under the road. Altogether, I then estimated that some ten miles of new frontages would be created, but now, with the additional approaches shown on the accompanying plan, and with the continuation of Stamford Street as a direct through way to London Bridge, this would more nearly approximate to seventeen or twenty miles. Nor do I see any reason for stopping there. Once the district is opened up, as it would be by the suggested roads, it would pay in every way to replace and to rebuild, with discrimination, the whole disreputable triangle between the Thames, Waterloo Road and the Borough High Road. More housing would be provided under infinitely better conditions, more offices, more shops, more theatres and more public buildings ; and the monetary profit would be beyond all computation.

THE RAILWAYS.

At this stage it may well be asked, What of the railways ? The answer to this is the same in essence as it was nine years ago :—Replace the five stations already mentioned, at Charing Cross, St. Paul's, Blackfriars, Holborn and Cannon Street, by a great central terminus where the new high level road is met by its northern branch in Blackfriars Road. Only I should now propose that the main approach to it should be from the east and not from the south, by switching both the South Eastern and the Brighton Companies' metals off to the south of Guy's Hospital, utilising the present London Bridge Stations for local traffic only.

The same great terminus would also pick up the local traffic coming in from the south by the old Dover line.

By this centralisation, enormous economy of running and of administration would be achieved, while sufficient accommodation could be reserved to meet the requirements of the new South London terminus for the next hundred years or more. At the same time suburban ticket holders will, with reason, contend that they would no longer be brought direct from home to the centres of their work. In place of this they would reach a centre whence, with equal ease, they could proceed by motor transport, in very short time, either North, East or West, while being deposited at once in the new business areas of South London.

As thus sketched, the project which I have the honour of submitting to this meeting admits of little modification, for its general lines are determined by the existing railways, the utilisation of which as roadways is of its essence, on account of the enormous structural economy thereby effected.

CHARING CROSS.

It is otherwise with the details, every one of which will require much consideration before finality is reached. Charing Cross, alone, has engaged attention for full fifteen years, and only slowly have the salient points of the problem emerged. For instance, it was not till comparatively recently that anyone recognised that the congestion in the Strand could be most easily removed by building a bridge across it. The honour of this suggestion rests conjointly with Sir Aston Webb and Sir Reginald Blomfield, and I have taken the liberty of adopting it. Its advantages are obvious to all who know that part of London, while the very similar levels of the railway and of the roads to the North of St. Martin's Church admit of its construction with little gradient. It will be noticed that, as compared with other schemes which have been propounded, I propose to abolish comparatively little property in this district, though I should remove the block of buildings to the North of St. Martin's to form an imposing square, and to act as the confluence of traffic from the West and North-West by way of Piccadilly and Regent Street through Leicester Square, and from the North by way of Charing Cross Road and St. Martin's Lane. Other traffic from the West by way of the Processional Way would follow the present route, reaching the new bridge up a gentle slope from the Strand, the space between this slope and the Strand Bridge being occupied by a Tube Station, above which Pugin's Charing Cross could be re-erected.

The present Charing Cross Bridge only needs casing with masonry to be converted from a monstrosity into an object of great beauty, provided that it be done with skill. The obviously satisfactory way of doing this is to adopt Mr. T. E. Collentt's idea and build shops upon the bridge, carrying them to at least the height of the girders.

Waterloo.

The next important point along the High Level Road would be at Waterloo Station ; and it is interesting to note that since my original scheme was promulgated this Station has been enlarged and so planned as to take full advantage of its adoption, as if the Directors anticipate that it will some day be carried out. It may, however, have been accidental, for Waterloo is still difficult of approach from every direction. But with the opening of the High Level Road it would be as easy to reach as any of the other London termini, for it lies on the road and at its level, while new and easily constructed slopes, such as are shown on the plan, from the end of Waterloo Bridge on the North, from the back of the London County Hall on the South-West, and from Waterloo Road on the South-East, would add to its accessibility. These slopes would also add greatly to the traffic facilities afforded by the High Level Road.

The New Terminus.

The New Terminus of the S.E. & C. and the L.B. & S.C. Railways is clearly open to many different methods of treatment. I am suggesting a large High Level Square as its main frontage, with another High Level frontage parallel with Blackfriars Road, to which it would be continued downwards by a sloped way ; while a branch sloped way would cross the same road down to Waterloo Road, opposite a new road cut through slum property to Westminster Bridge Road—with the object of securing a direct approach from the West over Westminster Bridge.

The Southern slopes, both from Waterloo and from the New Terminus, carrying as they would do a great deal of through traffic as well as that from the stations, might congest the Elephant and Castle and necessitate a new way being opened up to the Kennington Road ; but this is outside the present proposals.

A sloped way to Southwark Street on the North is also shown, but I would suggest that the district lying at a low level to the South of the river could best be served by a low level booking hall, under that above, while the remaining space beneath the main station could be put to many important uses, providing large waiting and refreshment rooms, cloak and parcels' offices, and means of approach to tube railways, which would soon be connected up to such an important centre.

London Bridge.

At the South end of Cannon Bridge, where it is not far from London Bridge, the problem is largely one of levels, and the suggested solution is little more than a sketch, calling for fuller consideration when the necessary data are available, as they are not at the moment of writing. Some unsightly railway bridges would be removed, and the opportunity should certainly be taken to form a Square or other open space round Southwark Cathedral, and to materially improve the Vegetable Market, while at the same time providing two sloped ways for vehicular traffic from the High Level Road—one to the Borough High Road on the South, and the other to London Bridge itself. Further than this, direct East and West communication at the low level should be opened up, past the Cathedral, with the suggested extension Eastwards of Stamford Street.

CANNON STREET.

At the North end of Cannon Bridge I suggest that the main central approach should be supplemented by others from the North-East and North-West respectively. The former of these would almost wholly relieve the present undue congestion of traffic over London Bridge, while the latter would pick up so much of that now passing along Aldersgate Street as would not preferably go by Giltspur Street to the projected High Level Blackfriars Bridge. In this way, St. Paul's Bridge would be rendered unnecessary.

The direct route, as indicated on my plan, ends abruptly in Cannon Street Station Yard, while only a little distance further North is the most congested point in all London, the Bank crossing, crying aloud for relief ; and it is questionable whether something drastic would not sooner or later have to be done here. I mean, that it might well become necessary to pull down the Mansion House and cut a clear way through. A new site for an enlarged Mansion House could be found where Cannon Street Hotel stands.

Cannon Bridge, like the others, would have houses or shops on it beside the roadway.

BLACKFRIARS AND HOLBORN.

The direct Northern approach to the New Terminus, over the present railway bridge at Blackfriars, part of the great width of which would still have to be reserved for railway metals as already mentioned, would be mainly valuable in collecting Southward and disseminating Northward traffic by way of Gray's Inn Road and Holborn in the one direction, and by Giltspur Street in another—possibly widened and re-planned, though this is not indicated. Most of this would be through traffic, though the Terminus would thus be directly served from a large Northern area, from which access to the present termini of our Southern railways is now extremely difficult. A clear way round to King's Cross and Euston, even, would not be an impossibility.

THE INTERESTS INVOLVED.

Having now explained my scheme in such detail as the time at my disposal will permit, it becomes necessary to consider briefly what interests would be involved and to what extent they would be affected. And of these the public interest is paramount ; and under this heading I do not mean the interest of Londoners alone. Directly or indirectly the whole world is involved, so great is the need for the proper development of the world's trade centre. Without it, in some form or other, the centre must inevitably be transferred elsewhere.

The ultimate custodian of this interest is Parliament, and it may be relied upon to pass into law any Bill for which a good case is made out.

The local custodians are the Corporation of the City of London, the London County Council, and the Borough Councils of Holborn, Westminster, Lambeth and Southwark. All of these important bodies are alive to their responsibilities, and, I believe, are willing to shoulder them, whether individually or in concert. They would do so even if great expense were involved with no other return than public convenience, as the Corporation have shown in the matter of St. Paul's Bridge. But it is far otherwise with this scheme, provided that it be not carried out piecemeal and spoilt. The monetary return, as already pointed out, would be upon a gigantic scale.

Apart from this, all the bodies named, with the possible exception of the Westminster City Council, would benefit in the increase of rateable values within their areas. Even Westminster would probably not lose in this respect, but if it did, I feel sure that it is patriotic enough, as it is certainly wealthy enough, to bear the loss with equanimity.

The great private interests concerned are those of the railways. These are trading concerns which cannot be expected to do otherwise than look closely after the dividends of the shareholders. All dealings with them would have to be upon a purely business footing, and each is differently involved.

The London and South Western is in the happy position of being able to sit still and do nothing, while other folk go to the trouble of providing its terminus at Waterloo with infinitely improved approaches. It stands to gain in every way, but it is doubtful whether it will do much in the way of initiative.

The position of the South Eastern and Chatham has already been fairly well discussed. It would doubtless claim heavy compensation for the loss of five stations, two of which are main termini, and also demand large sums for the arches and river bridges and other structures (including two large hotels which it now owns and which it would have to part with). The provision of the great New Terminus, with possibilities of expansion, would doubtless be accepted in part payment, but the Company would surely drive the hardest bargain possible short of carrying it so far as to permanently wreck the scheme. For in the long run this railway would stand to gain as much as any other by the full development of South London and the opening up of direct through communication roads, and its Directors are astute enough to recognise it.

The London, Brighton and South Coast, if provided with a good modern station, having the possibility of expansion, in place of that at London Bridge, or as supplementary thereto, would have little to grumble at. Like the South Western, it would probably sit tight, accept the benefits conferred upon it, and (except that it would struggle to retain the London Bridge Terminus for suburban traffic) would say little.

The tube railways need little said about them. They would soon meet the new conditions by extensions which, to be devised to the best advantage, should be planned when fully developed drawings for the other alterations are prepared. The time for this has almost come, even if it be not overdue.

The Means of Accomplishment.

Now, having got so far, how can this great matter be put in hand and carried through to conclusion? It is of little use to indicate a great public improvement, and even to show that it would bring profit to its promoters, if no method for accomplishment could be found.

To my thinking there are four alternatives :—

(1) Direct Government action, as a National matter ;
(2) Action by the great local authorities already mentioned, in combination, under the Town Planning Act ;
(3) Action by one or more of the railway companies concerned as a private commercial venture under special powers ;
(4) The formation of a special Limited Liability Company for the purpose, also under special powers, in which all the public and private authorities concerned would be large shareholders.

Personally I dislike the idea of State action. It will be said that that is no valid argument against it, and I agree ; but I believe that my opinion would be shared by the vast bulk of my fellow countrymen, in spite of the present outcry for the nationalisation of everything and everybody. We do not want the most gigantic building enterprise in the world to be a Government monopoly on the one hand ; and on the other I feel sure that the taxpayers of Manchester and Glasgow would object to pay for even the greatest improvement scheme for London. This happens to be both building enterprise and improvement scheme in one.

The City Corporation and the L.C.C. in combination, and with the co-operation of the Borough Councils concerned, could carry the scheme through under the Town Planning Act, as it stands ; or if additional powers were necessary, these could doubtless be secured. The adjustment of costs and profits would present difficulties, and the Railway Companies might have to be dealt with as opponents. But it is a possible way, and not to be dismissed cavalierly.

Another possible way would be for the South Eastern and Chatham Railway to take the matter up as a business proposition, much as seaside resorts have at various times been developed by the railways most intimately concerned with them. The position of this Company is very strong. It already possesses the material of the roadway and the bridges ; it would have few great compensation claims to meet ; and it could without doubt obtain the required powers if it were to produce a fully considered plan, and raise the necessary capital. Let the Directors, I suggest, go into the matter carefully, carrying it much further than I have been able to do, so as to ascertain with some approximation to accuracy the probable cost, the probable return, the probable saving in administration, and many other probabilities which full investigation would disclose. The *prima facie* case is, as I think, strong enough to justify the investigation at least, and the expenditure upon it of a sufficient sum to disclose all difficulties and possibilities. And if the one Company does not feel strong enough for the task, let it invite the co-operation of the L.B. & S.C. and the L. & S.W Railways also. In these days of great combines, either in entirety or for special purposes, this is by no means an impossible suggestion, especially just now, when the railways have become accustomed to working together under joint management, and when even the amalgamation of all of them permanently under direct Government control is being mooted.

The fourth alternative, the formation of a great new Corporation or Company with specific powers, would enable the great Local Authorities and the Railway Companies to act together, neither levying mail upon the other, but all taking shares upon some agreed ratio, paying for them either in land or material or cash, and then raising the balance needed from the public by subscription in the usual way. The formation of such a Company presents difficulties, but not insuperable ones ; and perhaps one of the greatest of these is that of finding the necessary driving force for its initiation. Who, for instance, is the one person, or what is the one body, which could be looked to with confidence to do the initiatory work of exact planning and computing, of gathering the various conflicting interests into harmony, and of producing a Prospectus which was honest and clear.

CONCLUSION.

This brings me to my final suggestion. The one person to act is the Minister of Transport. He possesses the power, and ought to exercise it : he has the driving force, and he should employ it. And the means to that end which he could most efficiently and most expeditiously employ would be a Royal Commission, provided not merely with the right of sifting evidence, but with definite instructions and ample means for the preparation of complete and detailed plans and estimates first, and subsequently instructed to report as to financial prospects and as to the means to be adopted for bringing the scheme to fruition.

It is to the Minister of Transport that I appeal.

Doubtless many will say that the present is not the time to launch a great building proposal such as this, when all available labour and materials are needed for the provision of housing accommodation, and when there is the dual cry for economy and production all round.

My answer is that these are all arguments for going ahead with this scheme at once and with all possible speed. As I said at the outset this evening, London's heart must be given room to expand and the means to function properly or the whole nation, and even the whole Empire, must suffer. It is a primary necessity, upon which almost all else depends. Further than this, owing to the existence of the bridges and the main roadways at the present time, the amount of labour and material required anew is remarkably small. Further again, the scheme itself provides largely for new and additional housing accommodation right in the very heart of things, and not miles away in distant suburbs. And further again, little need be purchased abroad of all that would be required, save food for the workmen, and that in less proportion than formerly, and it is to be hoped soon in less proportion still ; for I do not consider that food brought from our great Dominions is purchased " abroad."

Sooner or later the work must be done. If done now, it can be done as a whole and economically. If it be deferred it will still have to be done, but little by little, bit by bit, with many mistakes and constant adjustments and infinitely greater cost and much more worry. The economy is to do it once and do it well. And it is the only way to make it pay. To niggle with it, first building an unnecessary St. Paul's Bridge, and then dealing with Charing Cross as if nothing else mattered, is to incur loss all round and all the time.

Let us do it now, and do it thoroughly, economically and profitably.

DISCUSSION.

MR. W. H. LEVERTON in moving a vote of thanks to the lecturer said Mr. Middleton had given them plenty of food for thought and for discussion. He had out-Heroded Herod, inasmuch as he not only proposed to do away with Charing Cross Bridge, but with Cannon Street and Blackfriars Bridges as well. Personally, he thought it would be a great mistake to dispense with Blackfriars Bridge, as it was a connecting link between North and South, for Goods and for Passenger traffic, although in regard to the latter, it had never been properly utilised. The great advantage of the London Chatham and Dover line, was that it took passengers from, say Blackfriars or Holborn, and ran them right out of London without beating about the bush, like the Charing Cross line. He would like Mr. Middleton to explain more fully what he considered would be the advantages of having a high level road over a low level road connecting up with the intervening roads, and thus save all those complicated inclines and slopes. The latter, the speaker thought, would block the light and air to a number of dwellings on the lower level. If it was intended to be a sort of racing track for motors, there might be something in it, but he did not think that was the idea. He agreed that the proposed St. Paul's Bridge was unnecessary, and he thought the sole reason why it was proposed was, because the City having so much money, thought they would spend it on bridges. The road which Mr. Middleton proposed in place of the railway line from Holborn Viaduct to near the Elephant and Castle, was so close to the Waterloo and Blackfriars roads that he could not see the necessity for it. If it were somewhere between those roads it would be of more use but still objectionable in his opinion. Mr. Middleton also proposed that the continuation of the bridge road at Charing Cross should be sufficiently high for the traffic to pass over the Strand. One of the objections to the present bridge—and the main objections were æsthetic—was that it blocked the view of the river, and a bridge higher than the present one would be more objectionable still. With regard to the large Station which Mr. Middleton proposed to put near the Elephant and Castle, he thought it a great mistake to have very large Stations because of the enormous congestion in the streets close by caused by the traffic, as for instance at Victoria Station, where it was difficult to get into the Brighton line station without being run down. Mr. Middleton had pointed out the very close approach to this new Station over Westminster Bridge, but if on the West side of Westminster Bridge, it would be much nearer to go to Victoria than to the new Station which would be of little use to the City and no use to the West End. He felt much indebted to Mr. Middleton for his paper, which dealt with a very interesting question.

Mr. Percy Lovell (Secretary of The London Society), in seconding the vote of thanks, said it would be interesting to know who first thought of replacing Charing Cross Bridge with a road bridge. He had been told that the Metropolitan Board of Works had the idea in their minds, when they laid out Northumberland Avenue and the streets from the National Liberal Club and from Whitehall. Mr. Balfour had also referred to it in a speech which he made at the Royal Academy Banquet. Sir Aston Webb was, he thought, the first to suggest a road bridge over the Strand as a means of overcoming the difficulty of congestion of traffic. A great number of people objected to a road bridge at Charing Cross, because they felt that they would be landed such a long way from the point they were accustomed to be brought to by the railways, but these objections no doubt could be overcome by developing the underground traffic. However much they appreciated London and its old buildings, he thought they would agree that eventually the old buildings would have to be rebuilt and there ought to be some great plan underlying London improvements with which they would all be in accord, and he thought the key to such a plan was a Charing Cross Road bridge to replace the present unsightly railway bridge. At the London Society, they deprecated raising too many questions as to how this bridge was to be carried out. They wanted all those who felt that it was a great London improvement to stick to that one point. Let them get rid of the railway bridge and have a road bridge, and let those who undertook the scheme finally settle the details as to how it is to be carried out. In the course of the next few months, the time limit which the House of Lords imposed upon the South Eastern and Chatham Railway Company for spending £150,000 on Charing Cross Railway bridge ran out, and people were not to think because the Company started work on the bridge that therefore the Charing Cross bridge improvement was abandoned. It was very much alive, and he asked them to concentrate on the desire for the improvement.

Mr. Ellis Marsland (Member of Council), said as people got on in life they lost their courage as a rule, but Mr. Middleton had renewed his youth in presenting such a chimerical scheme. Not only was it chimerical, but Mr. Middleton was so dogmatic about it. He supposed it was because he had been in the theatre of war, that Mr. Middleton had begun to think in millions. It would be all right if they had a good fairy to wipe it all out so that they could start afresh. Unfortunately, that was not so and the scheme proposed was going to cost more than sixpence, so that the first point was from where were they going to get the money. Mr. Middleton's big Station was put in the wrong place in his opinion, where nobody wanted it or could get to it and also it was a long way from where one wanted to get. He always thought that the idea was for all the other railways to come to Waterloo, but now Mr. Middleton said all the other railways were to come to that new Station. He was sure Mr. Middleton would not mind his critcism being so drastic, but to put it shortly he did not think Mr. Middleton had hit it this time.

The President (Mr. Edwin J. Sadgrove), in summing up the discussion, said he could not altogether associate himself with some of the objections made to the scheme, because he thought their greatest possible thanks were due to Mr. Middleton for having conceived such a scheme at all. There might be some points in it which were open to improvement, but at the same time he had submitted a scheme which on plan, looked as though it would go a long way towards relieving the congestion of certain points of London. He did not propose to criticise the paper or to say whether the slopes were in the right place, whether they were necessary, whether the suggested parallel roads were wanted, or if the new main Station was in the right place. With the improved means of transit, the place for the new Station might possibly be found to be the very best place, but apart from that, there was in the scheme submitted by Mr. Middleton some very good food for thought, and out of it might come many most valuable ideas which if incorporated with others from other eminent men might lead to the best possible results. He had great pleasure in conveying to Mr. Middleton the thanks of the meeting.

Mr. G. A. T. Middleton in reply said he was obliged for the patient way in which they had listened to his scheme. He had put forward the idea as it had occurred to him and he thought it no less than his duty to bring it forward again, now that reconstruction was in the air. With regard to Mr. Marsland's drastic criticisms, he knew they were made in a friendly spirit and he was ready to accept and reply to them. He did not think he had placed the Station in the wrong place if his scheme was carried out. It was the junction where the new great North Road would join the East and West roads from Charing Cross and from Cannon Street, and with modern motor traffic, the distances were not great and would become less and less as time went on. If they were to concentrate on Charing Cross as suggested by Mr. Lovell, he thought it would just lead to placing that Station in the wrong place—it would be a great mistake and would be tackling Charing Cross only, instead of doing a big thing and doing it well—doing it little by little and doing it badly, when they ought to do it thoroughly and rightly and have a big scheme from the start. Even if they did the little things bit by bit, at any rate, they should have a big scheme behind from the outset. Money—that was always the outcry of the men who had not the courage. In the past their grandfathers had opposed the the great trunk railways, which were much bigger schemes than the one now proposed, with the same outcry as to where the money was to come from, and in those days of which he was speaking, the money came rolling in. It only wanted courage —somebody to stand up and say "here is a great thing that will pay," and the money would be forthcoming. A little thing perhaps would not pay, but if done in the right way, there would be no difficulty. Now that motor traffic had developed to such an extent, great arterial roadways were urgently required right across and through London, and London itself required extending. He did not think it a chimerical scheme and perhaps he was dogmatic—it was a habit as one got older, and particularly if a scheme had been in one's mind for a very long time. He thought he was the first to place on paper a scheme for transferring Charing Cross Station across the river. Whether there was any idea in the minds of those who laid out Northumberland Avenue as to a road bridge eventually being placed there he could not say as it was rather before his time, but if so, it was badly laid out, for it ran down hill to the low level of the embankment ; they would then have had a bridge so low that it would not have cleared the traffic of the river—it would not do—the levels were wrong, whereas the levels are right for the proposed Charing Cross road bridge. Mr. Leverton seemed to think the suggestion was for a bridge higher than the present railway bridge, whereas the whole essence of the thing lay in the fact that the level of the present bridge was almost the same as the level of the ground at the North of St. Martin's Church, and was well above the Strand, and very little addition would allow the Strand to be cleared. The only object of the suggested bridge was to avoid any further congestion of traffic in the Strand itself. Mr. Leverton had also said that all the large Stations produced congested traffic and he agreed, but the reason was because of the mean little narrow roads near the great Stations—they never thought of widening their roads and approaches. In the case of the Gard du Nord at Brussels, there they had a fine open place in front of the station and there was no crush—no trouble—and that was why he had suggested that great square with plenty of broad roads eighty feet wide, which would not congest traffic, but release it. The advantages of the high level road were in the first place that it existed at the present time, and that if they carried a large amount of traffic above, it would not congest the roads on a lower level, which the constant crossings with a new circular road would entail. It also was economical, the road was already there, and they had not to get new material at a time when all material was hard to get—it only meant money being paid from pocket to pocket and that was not introducing a lot of new material and new labour. He did not think Mr. Leverton quite understood the proposal with regard to Blackfriars Bridge, because he had intimated in his paper that he did not propose to interfere with that through North and South traffic on the railway that existed there. He had criticised something which had not been suggested. St. Paul's Station might very well come down and very nearly all that track could be used for the new roadway.

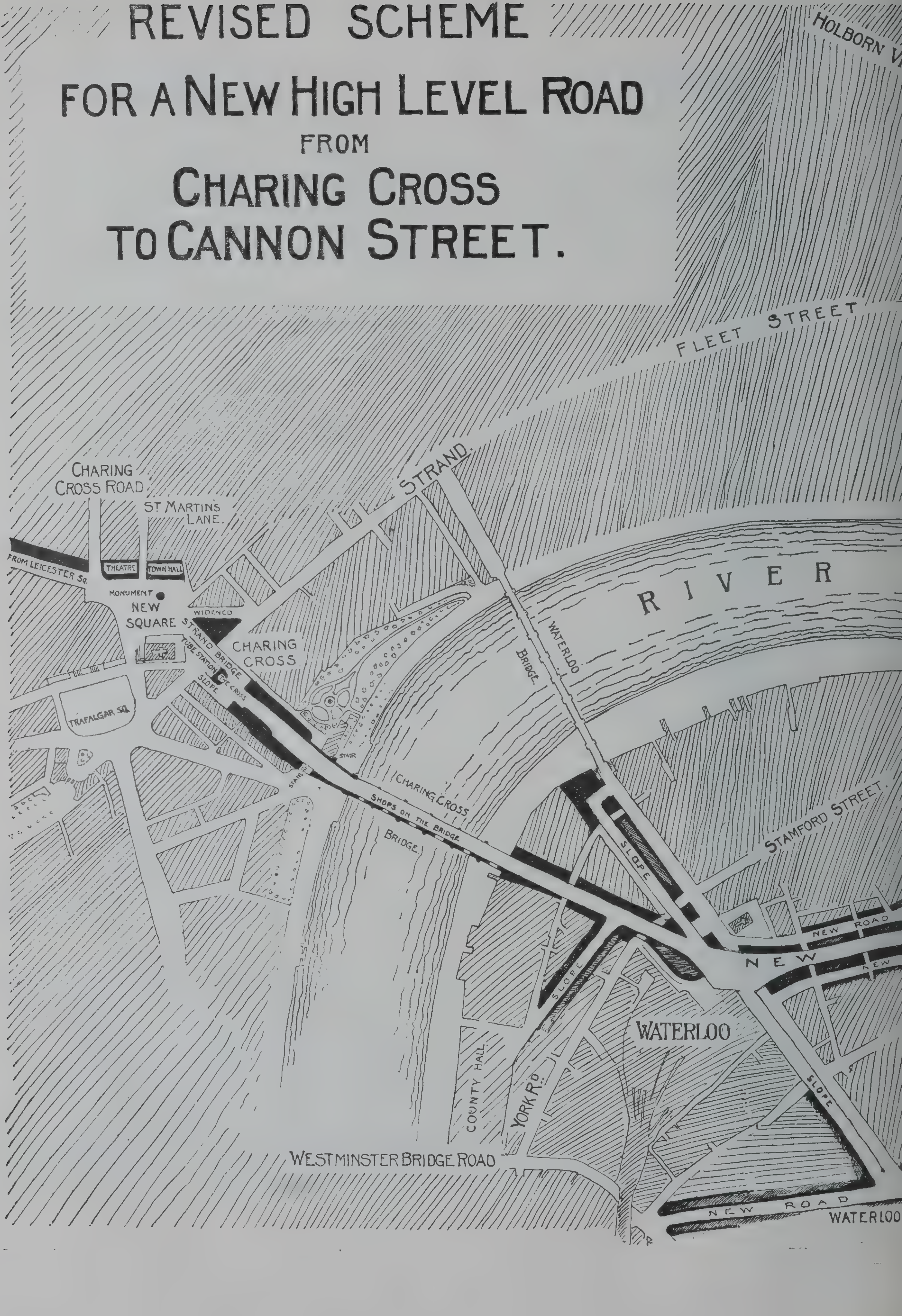
SURREY SIDE SLUMS.

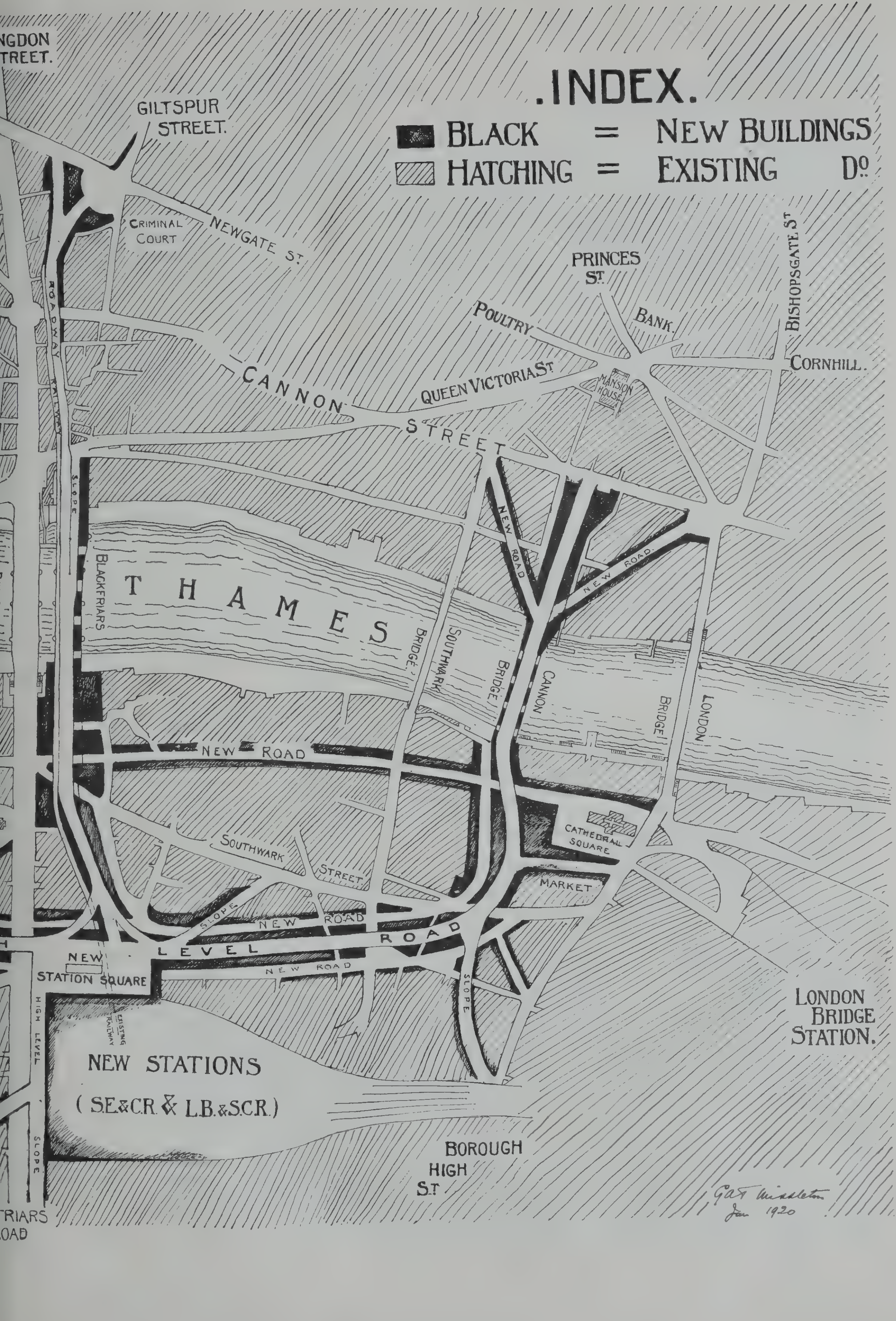
One of the most startling surprises to visitors to London is the remarkable contrast on the Surrey side of the metropolis—say, in the section of the river between Westminster and Blackfriars Bridges—in comparison with the development flanked by the Victoria Embankment, South London, viewed in the daylight from the Thames by Cleopatra's Needle. Behind the shore line of grimy factories there is much slum property that will one day have to be wiped entirely out of existence.

Admittedly, South London as a whole is a squalid place, but it might be much improved if some good main routes could be cut through it and opportunity given for the erection of good class works and manufacturing premises. Indeed, I can picture the day when Fleet Street may unite in sending its printing establishments as a body over the river, and, indeed, already there are signs of a departure in that direction. If the much-talked-of transference of Charing Cross railway terminus to the south side is finally approved—and I think there is little reason to doubt this—this neglected region of the metropolis ought to spring into great activity and prominence, and one excellent move in that direction would be the construction of the new road now being advocated by Mr. G. A T. Middleton, past Vice-President of The Society of Architects.

Mr. Middleton suggests that the present little-used railway loop-line connecting Cannon Street and Charing Cross, which crosses the Thames twice, should be abolished as a railway and converted into a great highway to supplement the existing east and west routes of Holborn, Fleet Street and the Embankment. This line is on arches, and would become a high-level road, to which slope-ways could be constructed thus opening out the Surrey side slum property lying between it and the river and also on the landward side. It would have the further advantage of providing much-needed facilities without further obstructing the Thames with additional bridges, and, whilst it would do much to relieve London's terrible transport congestion, should also in the end immeasurably increase property values of thousands of acres of sites that ought to have been brought right up to date a full generation ago. *—Liverpool Daily Courier.*

REVISED SCHEME
FOR A NEW HIGH LEVEL ROAD FROM CHARING CROSS TO CANNON STREET.





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RE-PLANNING LONDON.

MR. MIDDLETON yesterday submitted to the Society of Architects a scheme for the development of London, which lacks neither imagination nor boldness. The problem before him is that of congestion at the heart of London, and congestion of traffic flowing from that heart to the circumference. We all recognise the fundamental structural defect in Central London as planned, or, rather, heaped up, to-day —its awkward conformation round the curve of the Thames between London Bridge and Westminster, the inner segment of this circle south of the Thames being cut off from the vital life of the metropolis, and constituting so much half-dead and wasted ground.

The idea of removing Charing Cross Station and putting the terminus of the South Eastern Railway on the south side of the river is an old one. MR. MIDDLETON proposes to utilise the high-level railway which connects Cannon Street and Charing Cross Stations as a broad roadway, substituting a new station on the south of the Thames. This road would provide an alternative east and west traffic route, and by slope ways on either side would open up the slum land in the river-bend for great business buildings.

We cannot now dwell upon the many details of MR. MIDDLETON'S fascinating scheme, nor the ingenuity with which he converts it into a paying proposition. The present muddle and waste is such that a carefully-thought-out proposal like this should at least be thoroughly ventilated and discussed.—*Daily Chronicle.*

Many suggestions for the reconstruction of London, which had to be put aside during the war, are now being discussed again. One of the most interesting is that which Mr. G. A.T. Middleton brought before The Society of Architects the other day for converting the high level railway from Cannon Street to Charing Cross across the Thames and through South London into a broad roadway, and making a new station, on the south side of the river, for those which the scheme would destroy.

If, in addition, the line from Holborn Viaduct across Blackfriars Bridge is included, three new bridges across the Thames would be provided for road traffic, and altogether some seventeen miles of new frontages would be created. The scheme is what Mr. Middleton means by the "something comprehensive" that is demanded "to relieve the excessive congestion of the heart of London itself."

"It is a suggestion well worth careful investigation," Professor S. D. Adshead said yesterday in an interview with a representative of the *Observer*. "It is, however, by no means original, for the same scheme was explained in detail at the annual meeting of the Garden Cities' Association ten years ago.

"Hardly anyone would dispute the advantages of doing away with Cannon Street Station, though an important bearing upon the question of traffic is the reconstruction in a permanent form of Southwark Bridge, and the decision of the City to build St. Paul's Bridge.

"Mr. Middleton's paper is very welcome at a time when the fate of three bridges —Charing Cross, St. Paul's, and possibly that at Cannon Street—is in the balance. Let us hope, however, that the authorities will not act upon his suggestion of casing with masonry the present iron railway bridge at Charing Cross, but that they will construct an entirely new bridge in preparing the design for which the architect will not be embarrassed by having to incorporate thousands of tons of rusty steel work.

"No one doubts the importance of giving effect to a scheme for reconstructing the city in such a way that it may conform to the new conditions of traffic that have developed during the past fifty years, for so far as the lines of road traffic are concerned the city is practically the same to-day as it was half-a-century ago.

"It seems to me, indeed, that it is an open question whether tortuous and crowded thoroughfares like Threadneedle Street, should not be closed to vehicular traffic, at any rate during the busiest hours of the day, whilst other streets, encircling the maze of what are really from the vehicular point of view nothing more than alley ways, might be greatly enlarged and improved."—*The Observer.*

Mr. G. A. T. Middleton in a letter in the *Observer* says :—Professor Adshead, in the course of an interview with a representative of *The Observer*, is reported to have said that my scheme for converting the high-level railway from Cannon Street to Charing Cross into a broad roadway was " by no means original, for the same scheme was explained in detail at the annual meeting of the Garden Cities' Association ten years ago." If he could give the exact date of that meeting and the name of the person who brought the matter forward and claimed the origination of the idea I should be obliged, for so far as I am aware it came to me independently in 1910, and was first publicly announced in a paper which I read before The Society of Architects at the end of that year. In the form in which I am now reviving it the opportunity has been taken to profit by subsequent criticism, but in essentials it is much the same as it was then. Only I have now gone so much further as to point out means for its accomplishment, and to explain how it could be made to yield a profit instead of being a dead monetary loss, as are most public improvements.

The main point, however, is not the special advantage of this or any other particular scheme (though I believe mine to be of basic importance), but the need for a thorough official inquiry into the question of London Development as a whole, so that a really comprehensive scheme may be evolved, which may be carried out either piecemeal or as a whole as may be found advisable. But I endeavoured to show, in my paper before The Society of Architects, on February 12th, that economy would be best achieved by going forward with a large and well-considered scheme in one effort and at once. In this way, it could be made to pay : if taken in hand bit by bit, it would involve constant trouble and expense, many mistakes would be made, and there would be no adequate return.

A Surrey Side High-Level Road.

Mr. G. A. T. Middleton, past vice-president of The Society of Architects, proposes that the present high-level railway which connects Cannon Street and Charing Cross should be utilised as a broad public roadway when the present Charing Cross terminus has been removed to the south side of the Thames. This loop-line upon arches, which crosses the river twice, has not a tremendous call upon it to-day, and he thinks it would be worth conversion if it did no more than provide an east and west route to the existing ones of Holborn, Fleet Street and the Thames Embankment. He also suggests that it might be made available for the opening out of the land between the road and the river, and also that south of the road, now occupied by slum property, by the making of easily constructed slope-ways on either side. He would utilise the little-used railway bridge over the Thames at Blackfriars as an open road, and thus provide three new bridges for vehicular and foot traffic across the river, each of which would be wider than any existing bridges, without adding an iota to the present obstruction of the river, The present Charing Cross Bridge, too, Mr. Middleton thinks, only needs to be cased with masonry to transform it " from a monstrosity into an object of beauty." There may be two opinions on this latter point, even supposing that the bridge is considered sound enough for such camouflage, but there can be no harm in the full discussion of the subject at large, for the growing congestion of the main arteries of London is one of the greatest troubles of the metropolis.—*Estates Gazette.*

Claims for War Damage.

The Committee on War Damage, of 7, Pall Mall, S.W.1, and 40, Chancery Lane, W.C.2, was instituted on October 28th, 1915, to urge the Government to provide out of National Funds for compensation to all who, during any period of the war, have suffered, or who may suffer, damage to person or estate from air raids or bombardments. Concessions have been made as follows :—1. A reduction of 50 per cent. on the premiums for insurance. 2. Compensation, by way of grace, in certain cases for personal injuries. 3. Compensation for injury to property since August, 1917, in certain cases up to £500. These are valuable concessions, but they are far from meeting the case satisfactorily, and the Committee will therefore continue to press for complete National responsibility as accepted by the Prime Minister in July, 1917 ; and it is not to be inferred from the following statement that the Committee in any way depart from their demand that compensation should be given by our own Government without waiting for its payment by our late enemies.

The Government require the full particulars of all claims for damage done by enemy air raids and bombardments for the purpose of the preparation of claims to be put forward by the British Reparation Commissioner to the Reparation Commission under the Peace Treaty. The Board of Trade is to be the office responsible for claims of this character, and the claims of those who have already sent in particulars to the Foreign Claims Office will be transferred by that office to the Board of Trade, and no further action on the part of such persons is at present required.

Those who have not done so, are asked to prepare particulars of any claims which they may have, so that such claims may be furnished without delay in response to a notification which will be issued by the Board of Trade. These particulars should include the following :—

Personal Injury.—Particulars of damage to persons injured, including surviving dependents, with amount of claim. The claim should show how the figure is arrived at.

Injury to Property.—Particulars and amount of claim, showing how the figure is arrived at (whether original cost, cost to make good at time of damage, or cost to-day).

Luxury Building Appeal Tribunal.

The Ministry of Health states that under the Housing Act passed at the end of last session local authorities are given powers to prohibit building operations, which interfere with the provision of dwelling accommodation. Any person aggrieved by an order of the local authority may, however, appeal to a tribunal appointed by the Minister of Health, and that tribunal has now been formed. The chairman will be Mr. E. B. Charles, C.B., K.C., and the following gentlemen have accepted Dr. Addison's invitation to serve as members :

Sir J. S. Harmood-Banner, M.P. (representing the local Authorities).
Mr. James Storrs, chairman of the Industrial Council for the Building Industry.
Councillor R. Wilson, J.P., chairman of the Resettlement Committee of the Industrial Council.
Sir John Wormald.

Mr. Storrs and Councillor Wilson were nominated by the Industrial Council for the Building Industry, at Dr. Addison's request, as representatives of employers and employees respectively.

The tribunal will sit at the offices of the Ministry of Health, and meetings will be held in the afternoons, after four p.m. Communications should be addressed to the Clerk to the Appeal Tribunal (Regulation of Building), Ministry of Health, Whitehall, S.W.1. The Ministry of Health advises that before entering into contracts or beginning to build, promoters of new construction should communicate with their local authority.

Hindrances to Building.

Mr. Arthur Keen, the Honorary Secretary of the R.I.B.A., makes the definite statement in a letter to the *Times*, under the above heading, that since the signing of the Armistice, architects' offices have been full of work.

We hope Mr. Keen is one of those fortunate architects of whom we know there are a number, but we also know there are many other architects, particularly ex-Service men, some of whom have returned to find not only empty offices, or no offices at all, but their places filled and their applications for a share of the work of local Housing Schemes refused, in favour at times, of other persons, who have been nursing the job at home while their professional brethren have been on active service.

The Director General of Housing expressed the view at one of the Society's gatherings recently, that architects were so busy that it was necessary to urge them to give priority to Housing work, and the R.I.B.A. journal apparently holds the same view. If this is the situation, why is it that the architectural journals publish long lists supplied by the Ministry of Labour, of demobilised architects wanting employment, the majority of whom are members of the R.I.B.A., and why do members of that body as well as other architects find it necessary to apply to the Society for employment?

From the communications we constantly receive from architects in all parts of the country, we are able to say that one hindrance to building would be removed and one section of the community materially benefited if Local Authorities and others having charge of Housing Schemes would place the work on the hands of practising architects and, other things being equal, give preference to ex-Service men. In this connection it may be of some interest to state that representations on the latter point made by the Society to the Association of Municipal Corporations have been most sympathetically received and are to be embodied by that body in their report to the Municipal Corporations of England and Wales, while the Ministry of Health have expressed their entire agreement with the views of the Society on this subject.

National Congress of Belgian Architects.

This Congress, says Mr. W. E. Woolley, M.S.A., Hon. Cor. Memb., Liége Association of Architects, etc., expressed a wish that there should be organised a "Committee of Allotment or Distribution of Architectural Works," composed of nine members, which should be elected by the architects of the various devastated regions. This Committee has been formed, but Flanders "occidentale" is represented by an architect, who is "foreign" to the province, and also "foreign" to the only Society of Architects established there and affiliated to the Federation of Societies of Architects. The candidates of the Society concerned have been eliminated. The Society protests and asks the competent ministry to intervene.

The reconstruction (in its main points), of the devastated region of Tournai, is complete. The roads are repaired, the permanent ways are "added to the circulation," and the Escant has been once more made navigable.

War Service Record, 1914-19.

In order that the Society's records may be checked and any errors or omissions made good, it is requested that Members concerned (in any class) will notify the Secretary, at 28, Bedford Square, W.C.1., of their past or present Naval, Military or Air Force rating or rank and unit, and any honours gained on service.

Particulars of service and awards are also invited from other Members who served in the Volunteers, Special Constabulary, Red Cross, or other Voluntary War Organisations, or in Government Works and Departments.

Summary of the forthcoming Scholarship and Students' Competitions, 1920.

General Note. In all the age regulations governing these Competitions, the maximum age referred to is the age of the Candidate on the day upon which the Competition is held. In all cases (except the "Victory" Scholarship) ex-Service Students may deduct the time spent in H.M. Forces between 1914 and 1919 from their present age, if necessary.

It is essential that intending Competitors in any of these Competitions should obtain from the Secretary of The Society of Architects, 28, Bedford Square, W.C.1, the full particulars relating to Competitions.

In all cases the Council of the Society reserve the right to vary the conditions and the award.

The "Victory" Scholarship.

Open to all British subjects (male or female) under 35 years of age.

Assessors: Professor A. E. Richardson, Messrs. A. J. Davis, R. Atkinson and J. P. Chaures.

Entries for this Competition close on *April 10th.* (Intending Competitors are recommended to enter as soon as possible, as it may be necessary to limit the entries).

The "Victory" Scholarship is a Competition in Architectural Design. It is divided into two parts, (*a*) a 12-hour sketch to be competed for *en loge* in London at a place to be determined; and (*b*) a final Competition for the selected Candidates, consisting of a second 12-hour preliminary sketch, to be competed for *en loge*. They will be allowed noe month in which to complete the final design from this sketch, and during that time they may receive the advice and criticism of their Masters and fellow Students, but must not deviate to any extent from their original 12-hour composition.

The prize will be a minimum of £50, and the Council will probably increase it to £100. It will carry with it the Gold Medal of the Society.

The winner will be at liberty to spend the money in any way which he or she may choose, provided that the Assessors are satisfied that it will be devoted to the furtherance of his or her education.

The first Competition will be held on Saturday, May 1st, at a time and place to be notified to Competitors.

Quarterly Competitions.

Restricted to Students of the Society under the age of 23 on the day the Competition closes.

Assessors: Messrs. Percy B. Tubbs, L. Sylvester Sullivan and Harry Gill.

The subject for the quarter ending April 30th is an essay on "Modern Methods of Building Construction."

Essays must be written in the third person, on one side of the paper only, and should be typewritten, if possible. They must be delivered at the Secretary's offices not later than 6 p.m. on Friday, April 30th, 1920.

The subject for the quarter ending July 31st is "Architectural Sketches," made between November 1st, 1919, and July 31st, 1920, and the subject for the quarter ending October 31st, is "Measured Drawings." Fuller paragraphs may be obtained from the Secretary.

The prizes offered in each Competition are a first prize of the value of £3 3s., and a second prize of the value of £2 2s., if more than ten Students compete.

The Travelling Studentship.

Restricted to Graduates and Students of the Society who are not more than 28 years of age

ASSESSORS: Messrs. Sir Charles Ruthen, O.B.E., Percy B. Tubbs, and Colonel F. S. Leslie, R.E.

The Competition drawings must be delivered carriage paid at the offices of the Society not later than 6 p.m. on the first day of May, 1920, without name, motto, or other mark of identification, and must have attached to one of the drawings a plain sealed envelope containing the Competitor's name and address and a signed declaration on a form to be obtained from the Society that the drawings are the Candidate's own unaided work.

The subject for 1920 is "A Design for a Middle-Class House."

The prize is £25 and the Silver Medal of the Society. The successful Candidate will be required to undertake, between June 1st and October 1st a sketching tour of not less than two weeks' duration, and to submit a diary of the tour, with measured drawings, sketches, and notes, on or before October 1st.

The Architectural Scholarship.

Restricted to Students of the Society under 23 years of age.

ASSESSORS: Sir Charles Ruthen, O.B.E., Mr. Percy B. Tubbs, and Professor Henry Adams.

Candidates are required to submit at least three, and not more than four, sheets of measured drawings and details of some buildings of historic interest.

The drawings must be prepared between January and September, 1920, and delivered carriage paid, at the Secretary's offices not later than September 30th, 1920.

The prize is £10, which will be disbursed by the Council on behalf of the Winner.

Examinations for Membership.

The Ordinary and Special War Examinations will be held in London, and if possible, in other centres during the week commencing April 6th, 1920.

Entries close on March 6th, and intending candidates should apply at once to the Secretary, at 28, Bedford Square, W.C.1, for a syllabus and entry form.

Victory Scholarship Fund.

The latest contributors to this fund, are Messrs. A. E. Elgar, E. W. Pearson, W. E. Woolley and the First Commissioner of Works. It will be remembered that Sir Alfred Mond showed great interest in the Society's educational programme, on the occasion of the exhibition of Beaux-Arts drawings at the Society's premises last July, and he has now given further proof of his practical sympathy in the work by making a very generous donation to the Victory Scholarship Fund, the competition for which is to be held on May 1st, under the direction of the Beaux-Arts jury. The amount subscribed to date, is £240 which it is hoped will be largely augmented by the generosity of those members who have not yet joined with others in expressing their gratitude for Victory.

Architectural Education After the War.*

By H. M. Robertson, Architecte Diplomé par le Gouvernement Francais.

The question of architectural education is very much to the fore at the present moment ; and there is no doubt but that it deserves all the prominence possible, for never before has there been a more propitious moment to modify its existing defects of method.

The war has brought out the value of architectural training as exemplified in men who have applied it to meet the exigences of an entirely novel situation, for it is a fact that architectural training seems to lend to its recipient a faculty of ready adaptability to all sorts of conditions besides that of the architect. This is probably because in the architectural schools and offices there have generally been found at least a moderate leavening of older men who gratuitously spend a great deal of energy in teaching their juniors to use their imagination and imagination leads to adaptability. Fortunately, also, the war has helped to disclose the weakness of our training, particularly in the younger men who had not already had the experiences of practice, the securing of which shows that a man is fit to surmount almost any difficulties.

The defect in our training which we all feel most keenly, is probably to be summed up in the fact that we leave an architectural school knowing many things superficially and practically nothing well. Our inefficiency haunts us in our student days and develops into a nightmare when we are faced with our first practical problems in an architect's office.

But it is unfair to conclude that this is necessarily the result of defective education. It is possibly because an architectural student has too much to learn in the short time at his disposal. Only super-students of indomitable energy and vitality can hope to become really efficient in the enormous number of subjects which pass before his harassed vision in, for example, a four years' course of training.

This fact would not, however, prevent the educational bodies from making an earnest endeavour to weed out unnecessary subjects from their curriculum, and from specialising more particularly along the lines which the experience of the past years and present everyday needs dictates. It is practically certain that mere artistic capacity can only succeed with difficulty nowadays, unless allied with business capacity ; and it is good to note that the student's future needs are being largely met in that respect. But in the opinion of many the actual business side of architecture is not sufficiently catered for in the schools, with the result that the average student is often unprepared for the realities of private practice.

It is interesting to ascertain the opinion of our French confréres on this subject, and in response to an enquiry, Monsieur Defrasse, S.A.D.G., architect to the Banque de France, has kindly supplied data regarding the modifications which are taking place in the Beaux-Arts system of education.

Before forming an opinion of these, it must be borne in mind that the average French student who is following a Beaux-Arts Course is securing his practical training side by side with his theoretical instruction. Nearly every French pupil is working in an office at some period of his Beaux-Arts studies, often in order to earn money to pay the atelier fees. For this reason the course to a Frenchman is a long one, often occupying five to eight years, whereas the foreigner, intent only on the school work proper, will take only half the time.

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* *From the Journal of the Architectural Association.*

But the Frenchman is getting the better training, and it is a fact that most of them leave the school very well fitted to enter practice as soon as an opportunity occurs. The practical office training is undertaken in parallel with the Beaux-Arts studies in design, and the benefits are reciprocal.

The military service generally interrupts this combined training, but it is fairly certain that it is valuable from the point of view of broadening the student's perspective of life in general by the contact with realities which it offers.

It will readily be seen that the Beaux-Arts system may present grave dangers to the foreigner who follows only the school course, and who has no previous practical knowledge. The American students and their teachers know this, for the Americans come to Paris largely between the ages of 24 and 26, when they have already benefited by a thorough grounding in a technical school or in an office. They are thus in a position to separate the wheat from the chaff, and extract from the French training all the vital and valuable essentials.

That the French training is considered fairly satisfactory to Frenchmen is proved by Monsieur Defrasse's summary of the reports of the Commission which was specially nominated to study such modifications in the Beaux-Arts Course as the experience of the war might have shown to be advisable.

The first point considered was the method of compensating students for the time lost in their studies owing to military service. This was arrived at by :—

(1) Allowing a certain number of points to mobilised men in the school entrance examinations.

(2) By reducing to one-half the number of mentions necessary to pass from the second, or preparatory, class to the first, and from the first class to the Diploma. This reduces the time spent in architectural design by about twenty months, and would enable the majority of students to qualify for the Diploma before the age limit of thirty years.

The next step was to modify the programme of study, and this was not effected by any radical changes, but rather by bringing the curriculum up-to-date. The main courses in Mathematics, Perspective, Stereotomy, Graphic Statics, etc., were left as before, but it must be remembered that just previous to the war, it was decided that a stiff examination in descriptive Geometry, Trigonometry and Elementary Statics, must be passed before a student is admitted at the Beaux-Arts entrance examination, thus ensuring a fair knowledge of these subjects.

The course in construction (second class) was divided into two parts, one purely theoretical (calculations, etc.), and the second practical, this latter being brought thoroughly up-to-date so as to include all modern methods of building.

A course in chemistry (first class) has been modified so as to lay particular stress on building materials, and the effect on them of atmospheric and other conditions. The first class concludes with an examination in building law, which latter does not have to be taken by foreign students.

The Diploma subject is, as before, left to the student's choice, and consists of full working drawings, specifications, etc. Many of the subjects chosen are those of work which the student expects to execute in private practice, and are consequently well worked out, for many of the students seem to manage to obtain jobs of their own before leaving the school.

There is one question which received close attention from the French Commission, namely, the reason for which the services of architects, with their special technical training, were not utilised from the start of the war in the technical Army services, such as the engineers, aviation, etc. The reply to this question clears the French student of any suspicion of inefficiency in his training, for it is stated that this lack of recognition is in no wise due to inefficiency in his technical education. The reason given is that the Architectural Section of the Beaux-Arts was not militarised before the war, as was the case with the other big French schools, such as Polytechnique, Centrale, Normale, etc. It was only after a two years' struggle with higher authority that the S.A.D.G. obtained recognition of the architect's status and it is interesting to note that the Commission's report reads that the architects rendered " most eminent service " in the Engineers, Aviation and Balloon Sections, and also to a high degree in the Artillery. The report concludes by recommending a specialised course of military training for architects in peace time.

It would be interesting to know whether a Commission of English architects empanelled to enquire into the same question in England would be able to deliver a similar " non-lieu " to the English schools and the architects who have been trained in them.

Royal Academy Exhibition.

All works intended for the Annual Exhibition of the Royal Academy, which opens on May 3rd next, for three months, must be punctually sent there on one of the days fixed for their reception. These days this year will be :—Water Colours, Pastels, Miniatures, Black and White Drawings, Engravings, and Architectural Drawings, Friday, March 26th ; Oil Paintings, Saturday, March 27th, and Monday, March 29th ; Sculpture, Tuesday, March 30th.

No works will under any circumstances be received before or after these specified dates. All works must be delivered at the Burlington Gardens Entrance. None will be received at Piccadilly Entrance. Hours for the reception of works, 7 a.m. to 10 p.m.

All works sent from the country or from abroad must be consigned to an agent in London for delivery at the Academy, unpacked, on one of the appointed days. Account should be taken of the present difficulties of transit. No works in cases will be received ; nor will the expenses of carriage be defrayed by the Academy. The attention of foreign artists and of English artists residing in the country and abroad is specially called to this regulation.

No photographing or copying of works will be permitted on the premises of the Royal Academy.

The forms and labels can be procured (during the month of March only) from the Academy. Applications for them made by letter must be accompanied by a stamped and addressed envelope for their enclosure.

No artist is allowed to send or exhibit more than three different works.

Current Competitions Conditions.

The following current competitions' conditions are filed with the Society for reference :—ACCRINGTON, WAR MEMORIAL ; BIRMINGHAM, LAY-OUT ; CHATHAM, LAY-OUT ; CHELTENHAM, WAR MEMORIAL ; EXETER, PUBLIC HALL ; HOUGHTON-LE-SPRING, SECONDARY SCHOOL ; SKIPTON, WAR MEMORIAL ; WINSFORD, WAR MEMORIAL ; BELGIUM, REBUILDING DEVASTATED AREAS.

Members are requested not to take part in any competition without first ascertaining from the Society that the conditions have been approved by the Council, and to draw the Society's attention to all architectural competitions at an early stage, at the same time sending a copy of the conditions if possible.

Accrington, Houghton-le-Spring and Skipton Competitions Barred.

Members of The Society of Architects are requested not to take any part in the above-named Competitions without first ascertaining from the Society that the conditions have been approved by the Council.

Publicity.

Ex-Service Architects. The resolution of the Council that, other things being equal, preference should be given to ex-Service candidates for appointments open to qualified architects, appeared in the *Evening Standard, Globe, Times, Morning Post, Manchester Guardian, Halifax Daily Guardian, Yorkshire Post,* and the professional journals. A statement as to the work done by the Society in the past few months in finding employment for ex-Service assistants appeared in the *Morning Post, Globe, Bristol Times and Mirror,* and the professional journals.

Skyscrapers for London. Sir Martin Conway's first proposals for Skyscrapers for London, was the subject of criticism by, and interviews with the President and other members of the Society in the *Evening News* and the *Evening Standard*. A photograph of the President appeared in the *Sketch,* amongst " people we take our hat off to," for his suggestion that rather than live in the Skyscrapers, people should inhabit " Dug-outs," with roof-gardens on the ground !

Glass Aerodromes on Piers of Skyscrapers. An article by the Assistant Secretary of the Society adversely criticising Lord Montagu's proposal for Skyscrapers for Housing, grouped to support glass landing places for aircraft in central London, appeared in the *Aeroplane* and the *Architect.*

The Starting Point for London Developments. Notices, reports and criticisms of the paper read before the Society by Mr. G. A. T. Middleton appeared in the *Times, Daily Telegraph, Morning Post, Daily News, Daily Express, Daily Chronicle, Daily Graphic, Field, Yorkshire Post, Globe, Evening Standard, Evening News, Observer, Essex Standard, Land Agents' Record, Estates Gazette, Modern Transport, Liverpool Daily Courier,* and the professional journals.

Roll of Honour. The Roll of Honour of The Society of Architects was published in the *Architect.*

Architecture as a Profession for Women. A series of articles on this subject by Miss Annie Hall, M.S.A., appeared in *The Woman's Leader.*

Architects' Fees. A letter from Mr. McArthur Butler suggesting either a new basis for the computation of architects' fees in place of the present commission on the cost, or permission for architects, like other artists, to charge what fees they like, appeared in *The Builder.*

Competitions and Housing Appointments. In reply to questions raised by a correspondent in *The Builder,* the Secretary justifies the Society's action in barring the Bridgwater Competition, and demonstrates the success of its activities in promoting the placing of Housing Schemes in the hands of practising architects, and in a further letter he deals with points arising out of the correspondence.

" Luxury " Building Tribunal. Referring to an editorial note in *The Builder,* commenting on the fact that there is no architect on this Tribunal, the Secretary points out in a letter in that journal that the Society urged on the Ministry of Health the desirability of including an architect thereon.

H.R.H. The Prince of Wales, K.G. His Royal Highness, when expressing regret for his inability to be present at the Society's luncheon to Viscount Astor on January 8th, asked that a record of the proceedings should be sent to him. A copy of the February issue of the Journal was sent, and His Royal Highness has written acknowledging receipt, and stating that " he will read it with much interest."

A Roof Aerodrome of Glass.

By Captain M. G. Kiddy (late R.F.C. and R.A.F.), Assistant Secretary.

In a letter to the *Times* on February 12th, Lord Montagu suggests " Skyscrapers " as a solution of the Housing Problem, so grouped as to act as piers supporting a glass landing-ground for aircraft. These suggestions cannot be taken seriously either by architects or by aviators.

In arguing that those who lived in the top storeys of the 300-foot Skyscrapers would enjoy purer air, Lord Montagu states that anyone who has flown over London at 150 feet will agree that the smoke-cloud is non-existent at that height. I am very much inclined to doubt whether any pilot has ever been foolhardy enough to attempt a prolonged flight over London at such a low altitude, but if it has been done I am sure that he was very intent on matters quite other than his sense of smell in regard to the smoke-cloud! I believe the Air Ministry Regulations still forbid a flight over London at a lesser height than 10,000 feet, and they are very wise in so doing. It is not proposed that every building should be a Skyscraper, and I am inclined to think that rather than enjoy purer air, the inhabitants of the top storeys would suffer from the foul air, smoke, and gases, discharged from the chimneys of the humbler dwellings.

Another point which has not been touched upon by the " pure air " theorists—for Lord Montagu is not alone in this argument—is the question of those who are unfortunate enough to live in the lower storeys. One imagines that the children would be expected to play in the wells of the buildings, which medical science has proved to be perfect death-traps, and a regular haunt of tubercular germs.

It is also very doubtful whether the sub-soil of London would stand the erection of these Skyscrapers.

From an aviator's point of view, the suggestion for a glass landing-ground supported by Skyscrapers, and presumably covering an area of streets, must be treated either as a joke or as a tragedy. In the daytime the light would render the glass partially invisible. At night, when one presumes that the mail-carrying work would be done, the pilot looking down at the street lights, and imagining himself to be quite safe, would suddenly meet the glass roof, and the alleged curse of the R.A.F—a glass too much—would become a curse indeed! Even if a roof aerodrome were a feasible proposition, glass would seem to be a very undesirable surface for it. It would either get slippery like ice, and lead to accidents when " taking-off," or rough, which would mean that the tyres on the undercarriages of the machines would get torn and lead to tyre-bursts, with further accidents.

With regard to the Skyscrapers acting as piers to the landing ground, the problem of the placing of the chimney stacks would be somewhat baffling to the architect, and one wonders how he would overcome it, having due regard to the " pure air " theory!

Those who advocate roof landing-grounds, and there are unfortunately many persons so afflicted, seem always to ignore the multitude of dangers from accidents, both whilst flying and whilst " taking-off " or landing, and to the neighbours as well as to those directly concerned, which are at present inseparable from such a scheme. The Authorities who have governed flying from its inception (and it must be conceded that they are the true " experts ") have always placed the safety of the public before the convenience of the pilot or the aircraft firm, and up to the present all aerodromes have been placed as far from a town as the railways governing supplies will permit. Few people comparatively speaking, have witnessed a bad " crash " ; fewer still have seen, as the writer unfortunately has, a big machine fall into a crowded street; it needs only this to cure for ever the advocates of central aerodromes for large towns, or still more fantastic propositions for roof landing-grounds.

Notes from the Minutes.

HOUSING. At a Meeting of the Council held on February 12th, it was reported that the Council's suggestion for the constitution of the Tribunal of Appeal *re* Luxury Buildings submitted to the Minister of Health, did not commend itself to Dr. Addison, who found himself unable to include an Architect on the Tribunal.

The Council's resolution urging that in public appointments open to architects, other things being equal, preference should be given to ex-Service architects, had been circulated as instructed. The Director General of National Housing, Sir James Carmichael, who had expressed the view at one of the Society's gatherings that some architects were too busy to undertake Housing Schemes, had been reminded that there were many architects ready to share in this work if it could be more evenly distributed. Sir James, in reply, had invited the Society to submit the names of Members recommended for any vacant appointment, and it was arranged that the President should see Sir James with regard to the matter.

LANTERN LECTURES. Arrangements are being made for a better lantern equipment, and the work of cataloguing and indexing the Society's collection of lantern slides is being proceeded with.

WAR MEMORIAL TABLET. A Sub-Committee has been appointed to deal with the design and erection of a suitable commemorative tablet.

ANNUAL DINNER. It is proposed to revive the Annual Dinner this year on a date and at a place to be fixed. It has been suggested that the Dinner might be held during the Building Trades' Exhibition, so as to give country Members an opportunity of attending both.

BUILDING TRADES' EXHIBITION, APRIL 10th-24th. At the invitation of the organisers of the Building Trades' Exhibition at Olympia, the Society will pay an official visit on a date to be arranged.

IRISH BRANCH. Mr. J. J. Robinson, of Dublin, has accepted the position of local Honorary Secretary, and has undertaken to organise the Irish Branch of the Society, founded some months ago, but whose completion was delayed by the death of the late Honorary Secretary, Mr. A. A. Scott, of Dublin.

GARDEN VILLAGE CONFERENCE, JANUARY 26th. A report of the proceedings was received from Mr. F. W. Rees (Member), who represented the Society at the meeting at Croydon. A hearty vote of thanks was accorded to Mr. Rees for his services.

APRIL EXAMINATION. The commencing date for the Membership Examination was fixed for April 6th. Sir Charles Ruthen, Mr. Percy B. Tubbs, and Professor Adams were appointed as Assessors for the Architectural Scholarship Competitions, and for the Quarterly Competitions the Assessors will be a jury of three of the Examiners. The subject for Essay at the forthcoming Quarterly Competition will be " Modern Methods of Building Construction."

The closing date for entries to the " Victory " Scholarship has been extended to April 10th, and the first competition (a 12-hours' *esquisse*) will be held on May 1st.

Mr. Harvey R. Sayer (Member) was appointed Examiner in Quantities in place of the late Mr. G. Dickens Lewis.

REGISTRATION. The report of the Sub-Committee on the Registration proposals of the Institution of Civil Engineers showed the necessity of watching the interests of architects, and arrangements are being made to place the views of the Society on the subject before the Institution. The Council of the Society have also under consideration a proposal from the R.I.B.A. Council for a joint meeting of representatives for further consideration of a scheme of Registration of Architects.

BUILDING TRADES' PARLIAMENT. The Council has nominated the President, Mr. E. J. Sadgrove, and the Senior V.-P., Sir C. T. Ruthen, as the Society's representatives on the Building Trades' Parliament.

Employment for Ex-Service Architects.

Some months ago, a deal good of adverse criticism was aroused by a statement made by Captain M. G. Kiddy, Assistant Secretary of The Society of Architects, in a press interview, to the effect that the Society's Appointments Register showed at that time, a demand for qualified Architects' Assistants in excess of the supply. These critics suggested that there was little or no demand for Architects' Assistants, whereas the supply was practically unlimited. Probably they had in mind the "unemployable," and also overlooked the fact that the statement was confined to the position of affairs as revealed only by the Society's Register. Since then the Society has dealt with demands for capable Assistants from upwards of ninety Employers, and the large majority of these vacancies have been filled by Candidates selected from ex-Service Architects, who sought the Society's help largely as a result of the press publicity given to the matter.

All services have been rendered gratuitously to the many Candidates who have benefited by use of Register and the measure of their gratitude may be gauged from the fact that the Society has, during the period mentioned, received one letter of thanks!

The Register was for a time open to all Architects, but it is now restricted to members of the Society, it being felt that the requirements of other Architects may be met by other organisations.

Proceedings of the Society.

An Ordinary Meeting of The Society of Architects was held at 28, Bedford Square, W.C.1., on Thursday, 12th February, at 8 p.m. The President, Mr. EDWIN J. SADGROVE, having taken the Chair, the Minutes of the previous meeting as published in the JOURNAL were taken as read, and were confirmed and signed.

The SECRETARY announced twenty-four nominations for Membership, including five from the South African Branch of the Society, and the reinstatement by the Council to Membership of L. W. BARNARD, F.R.I.B.A., of Cheltenham. He also announced the admission by the Council to the Register of Students, of H. M. BARKER, of Walmer; S. W. BEAMES, of Eastbourne; F. W. HARVEY, of Stoke-on-Trent; and W. A. FUNNELL, of Croydon. Sympathetic reference was made to the loss sustained by the Society through the death of Henry Titus Wakelam, Member, of London.

The Ballot was then taken for the election of the following Candidates for Membership, and was declared to be unanimously in their favour:—

WILLIAM ATKINSON, of Bushey; THOMAS O'BEIRNE, of Ayr; FREDK. ARTHUR LESLIE BUTLER, of Birmingham; HERBERT JOHN DAVIES, of Watford; CHARLES GEORGE FULLFORD, of Salisbury; ARTHUR CHARLES GILBERT, of London; ARTHUR THOS. WM. GOLDSMITH, of Eastbourne; HUBERT WILLIAM HORSLEY, of London; HERBERT PALSER, of Eastbourne, and HERBERT SKYRME, of Hereford.

This concluded the business of the Meeting, which was followed by a paper by MR. G. A. T. MIDDLETON, Past Vice-President, on "The Starting Point for London Developments." The following Members and visitors took part in the ensuing discussion:—The President (MR. SADGROVE), MR. PERCY B. TUBBS, MR. ELLIS MARSLAND, MR. W. H. LEVERTON and MR. PERCY LOVELL, the Secretary of the London Society. MR. MIDDLETON replied to the points raised, and was accorded a hearty vote of thanks.

The proceedings then terminated.

Reviews.

The Cheap Cottage and Small House. By Gordon Allen, F.R.I.B.A. B. T. Batsford, Ltd., Price 8s. 6d. nett.

This is a well-produced little book, in which many types of economical cottages, shops and bungalows are illustrated. In few instances, if any, however, are the aspects indicated, so that some discrimination must be used in consulting the plans, but these are all well considered, and the exteriors pleasing.

Daily Mail Ideal Labour-Saving Home. Associated Newspapers, Ltd. Price 5s. nett.

The plans illustrated in this volume, though only ten in number, are full of suggestions and of considerable interest, their main object being to indicate how labour in the working of a house can be economised by means of well-considered arrangement and the introduction of, perhaps, unusual fittings. Some of those indicated would involve additional cost at the outset, such as the provision of fixed lavatory basins with hot and cold water laid on in every bedroom; but the saving of labour, to say nothing of the added convenience, amply justifies the expense, and every plan is deserving of study.—*G. A. T. Middleton.*

Structural Steelwork, relating principally to the construction of steel-framed buildings, by Ernest G. Beck, Wh.Ex., Assoc.M.Inst.C.E. Demy 8vo, 462 pp., with 200 illustrations and tables. London; Longmans, Green and Co. 1920. Price 21s. net.

This is an important work, and the author knows how to handle his subject so as to bring it before the architect in a continuous and complete form, adapted to the requirements of one desiring to master the intricacies of steel-framed construction. He calls attention to the well-known fact, too often ignored, that in designing commercial structures, the stress at which the material ceases to be elastic should be regarded as the ultimate strength. "The common impression that well-designed structures are four times as strong as necessary is false and cannot be too emphatically denied or too carefully avoided." A nominal factor of safety of 4 is never really more than 2, and very often less. Bearing this in mind, it is evident that in the case of such a material as steel where no surplus is provided, all the loads and stresses must be most carefully considered, and there is no royal road to designing. An architect who has little taste for calculations will often look upon a text-book of steelwork as a "mathematical morass," but with patience and perseverance he will get through it. The author explains moment of inertia, section modulus, and radius of gyration in a new way, and rightly objects to the modern system of designating them in ins^3 and ins^4, recommending that they should be stated as "in inches," but we prefer the term "inch units." It is rather unfortunate for the elementary student that he uses the calculus in some of his demonstrations; there is no necessity for this, and many will find it an annoyance. In lattice stanchions the author objects to the lattice bars overlapping with a single rivet in each end, and prefers them to butt against each other with a rivet in each. The latter method, however, causes distorting strains which the former avoids, and the stresses on the single rivet occur in different planes. Many illustrations of riveted connections are given, and these will bear careful study. The author makes some caustic remarks on wind pressures, and there is no doubt that in general they are assumed to be greatly in excess of what is realised in practice. The experiments of Sir Benjamin Baker at the Forth Bridge showed that although a high pressure may occur over a small area, the average pressure over the area of an ordinary roof or the side of a building, at the same time as the maximum occurs, will be very considerably less. Stanchions are treated at some length but the foundations are dealt with far too briefly. In the same way, outlines of roof trusses are plentiful, but the working details are rather scant. Some useful tables bring the book to a close.—*Henry Adams.*

Economics in Relation to the Present Crisis.

On Thursday, March 11th, 1920, at 8 p.m., Sir Ambrose Poynter, Bart., F.R.I.B.A., M.S.A., will read a paper before the Society at 28, Bedford Square, W.C., on the subject of "Thoughts on Economics in Relation to the Present Crisis." Sir Ambrose will deal with the subject in general terms, and the discussion will be opened by Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., M.S.A., Senior V.-P., who will give specific instances of its application to the building industry.

The Society of Architects' Roll of Honour.

Killed, Died of Wounds, Missing, or Died on Service.

Members.

Barker, T. C., Yorks Regt., August 4th, 1917.
Carey, J., London Scottish, October 23rd, 1914.
Chesterton, Lieut. F. S., R.F.A., November 11th, 1916.
Davies, Major R. C., R.E., May 5th, 1917.
Emery, Lieut. B. J., R.E., November 5th, 1915.
Fogg, Capt. T. H., R.E., April, 1918.
Haslam, Lieut. J., Artists' Rifles, November 30th, 1917.
Hedley, Capt. G. M. (M.C., Order of the Crown of Italy), R.E., November 16th, 1918.
Jane, Major W., R.E., May 24th, 1918.
King, 2nd Lieut. F. C., Royal Irish Rifles, October, 1916.
Kohler, H., ——, 1917.
Law, Capt. C. O., R.E., January 29th, 1916.
Le Grove, 2nd Lieut. W., R.E., April 24th, 1918.
Lines, Lieut. R. W., Canadian Infantry, June, 1917.
Mettham, Capt. J. A., R.E., November 12th, 1918.
Norman, 2nd Lieut. E. J., R.E., March 30th, 1918.
Peters, K., R.E., February 2nd, 1916.
Sutherland, Capt. G. A., Seaforth Highlanders, July, 1918.
Winch, A., West Yorks Regt., July 1st, 1916.

Graduate.

Langford, B., Westminster Dragoons, November 11th, 1917.

Students.

Baxter, A. C., R.A.M.C., January 24th, 1916.
Burden, C. E., K.R.R.C., October 14th, 1917.
Evans, 2nd Lieut. D., R.E., September 14th, 1916.
Hill, Lieut. W. S., D.C.L.I., 1916.
Hudson, 2nd Lieut. C. H., King's Liverpool Regt., May 16th, 1915.
Marley, W. H., R.F.A., 1915.
Marshall, 2nd Lieut. S. J., Hussars, August 8th, 1918.
Rebbeck, 2nd Lieut. W. H. (M.C.), R.E., 1918.
Richardson, 2nd Lieut. R. H., R.A.F., November, 1917.
Scott, T., ——, March, 1917.
Timmins, E., Hussars, May 3rd, 1917.
Turner, 2nd Lieut. T. E., Kensington Rangers, May 9th, 1915.
Young, Lieut. A. E., Royal West Kent Regt., December, 1916.

Summary.	Serving.	Killed.
Members	350	19
Graduates	9	1
Students	93	13
Total	452	33

Mainly About Members.

Mr. R. H. Clucas, who was recently appointed Borough Engineer of Hammersmith, has been elected a full member of the Institution of Civil Engineers.

Mr. M. V. Treleaven, of Bude, has been appointed architect and surveyor of the Housing Schemes for Holsworthy (Devon) Rural District Council, and Stratton (Cornwall) Rural Area.

Mr. C. McArthur Butler, the Secretary of the Society, was one of the guests of the Sanitary Science Section of the Surveyors' Institution at dinner on January 21st, and responded on behalf of the kindred Societies.

The first design by Messrs. Ingall, Bridgwater & Porter in the City of Birmingham Housing Competition, Selly Oak site, is illustrated in the *Architects' Journal*. The houses are grouped round three sides of two squares, and have three or four bedrooms. They have been so designed as to secure the utmost accommodation and comfort, combined with economy, and will be brick built and tiled, and all the joinery work and fittings are standardised throughout.

Mr. A. E. Mullins has been appointed by the Camberwell Borough Council as valuer for special properties for the quinquennial re-valuation of the Borough.

The designs submitted by Mr. H. Stratton Davis, of 79, Northgate Street, Gloucester, for the Portishead War Memorial, have been placed first by the assessor, Mr. C. F. W. Dening, F.R.I.B.A.

Victory House, Kingsway, is designed to provide additional accommodation for the Public Trustee, and although only conceived after the Armistice, is already nearly completed. Prince's House, in the same thoroughfare, is an office building designed to harmonise with its surroundings. Illustrations of both these buildings appear in the New Year's number of *The Builder*, from drawings by the architects, Messrs. Trehearne & Norman, of Lincoln's Inn Fields.

Sir George Riddell, Bart., an Hon. Member of the Society, was one of the three gentlemen honoured with a Barony in the New Year's List, and has assumed the title of Lord Riddell.

A clock tower has been designed by Mr. W. B. Stonebridge for the Woburn Sands War Memorial. The base is of rough Cornish granite setts, and the facades of the tower either in rough grey terracotta or Weldon stone, with Hopton wood panels, with the names of the fallen in leaded lettering. There will be clock faces on two sides; the other sides being filled with carved panels showing naval and military flags, surmounted by a crown. The dome is to be of copper, surmounted by a weather vane. The cost of the obelisk is estimated at about £650.

The late Mr. A. Scott, architect, Local Hon. Secretary for Dublin, left £5,879, and appointed Mr. T. J. Byrne and Mr. R. M. Butler executors and trustees, bequeathing them £20 each. He also left similar legacies to his brother Henry and his three sisters; £50 for Masses; £10 to the St. Vincent De Paul Society, Terenure poor; directed the sale of five dwelling houses in Navan, and bequeathed another house in Navan and all his house property in Dartmouth Square and Donnybrook amongst his four daughters and their children. He gave all the furniture in his office and all the maps, plans, and other architectural documents, etc., to his son, Anthony, and his son-in-law, Mr. T. J. Byrne, to be used by them jointly in carrying on his business of architect ; and all the residue to be divided amongst his four daughters.

MR. E. C. P. MONSON, F.R.I.B.A., P.P.S.A., F.S.I., F.R.SAN.I., in his presidential address to the Institute of Sanitary Engineers, held at the Caxton Hall, Westminster, on January 14th, said he believed he was the first architect to be elected president of the Institute, his predecessors having all been more particularly members of the engineering profession. In 1914-15 and 1915-16 he was President of The Society of Architects, and he was at the present time President of the Institute of Arbitrators.

In the December issue of *Building*, the official journal of the A.T.A. and the N.I.A., South Africa, the activity of Members of the Society is demonstrated. Mr. H. G. Veale has an article on the forthcoming Art Exhibition to be held on the initiative of a Past President, Mr. D. M. Burton, with a view to establishing a South African Academy. He is followed by Mr. Theo. Scherer, who gives impressions of his experiences in England, and mentions the Society's successful luncheon given to H.M. First Commissioner of Works on July 30th, and the no less successful Beaux Arts Exhibition held by the Society. There is also a very interesting illustrated article, entitled "The Dawn," by Mr. G. W. Nicolay, showing the evolution of house making, out of which arose Egyptian architecture, and Mr. E. H. Waugh deals with the more prosaic subject of valuation. The report of the Assessors, Messrs. E. H. Waugh and D. M. Burton, on the designs for the proposed Medical Schools and Hostels for the Witwatersrand University is included, and also an article on Westminster Hall, by Mr. D. M. Burton.

MR. W. H. JERVIS, Assistant Surveyor of Erith, has been appointed by a unanimous vote as Surveyor to the Melton Mowbray U.D. Council out of 98 applicants.

SIR CHARLES T. RUTHEN, O.B.E., F.R.I.B.A. (Senior Vice-President, of The Society of Architects), has placed his resignation as Chief Inspector to the War Cabinet Committee on Accommodation and Deputy Controller of Accommodation for the London Area, in the hands of H.M. First Commissioner of Works. At the request of the First Commissioner of Works (The Right Hon. Sir Alfred Mond, Bart., M.P.), Sir Charles Ruthen, in conjunction with Sir Leonard Powell, J.P., undertook in January, 1917 "to inspect and report upon the use made by Government Departments of their office accommodation." The success of this entirely new and unique office was considered so great, that in January, 1918, the inspectorate was increased and Sir Charles was appointed Chief Inspector and Deputy Controller of Accommodation for the entire London Area. The First Commissioner in accepting the resignation now placed in his hands, of the honorary appointments named, states that he does so "with the greatest regret," and officially places on record his "sincere appreciation of the great services rendered to the Country in this work of accommodation." Sir Alfred Mond further states in writing to Sir Charles Ruthen "the excellent results achieved have more than justified my confidence in you, when I invited you to accept these positions. I am proud to think, that in this section of my administrative work, I have been able to avail myself of your able services and despite the enormous difficulties, that we have achieved some sound and practical results. I thank you most sincerely for all you have done." The First Commissioner considering that the work of the Cabinet Committee on Accommodation would be seriously handicapped if Sir Charles Ruthen were to sever his connection entirely with the Department has appointed Sir Charles Consulting Chief Inspector, "in order that the committee in any difficult circumstances may avail itself of his valuable assistance."

The Somerset County Education Committee have instructed LIEUT.-COL. PETER G. FRY, C.M.G., D.S.O., to prepare plans for the erection of a boys' secondary schoo at Weston-super-Mare, to accommodate 200, and a girls' secondary school, to accommodate 150.

The design for the War Memorial, Truro, was selected by the assessor in open competition, in which twelve competitors sent designs. It takes the form of the old Cornish Celtic cross of the 9th and 10th centuries, in Cornish granite, supported by an enriched shaft on a square pedestal. The pedestal also supports a bronze metal figure of Tommy, and a bronze metal tablet with the names of the fallen. The design is by MR. ALFRED J. CORNELIUS, of Truro. The cost is stated at £1,450.

MR. R. M. BUTLER, of Dublin, has been elected a Member of the Council of the Royal Institute of Architects of Ireland.

An extension of Messrs. Elliot Bros.' works at Lewisham, S.E., has been constructed on the "Kahn" system, and comprises three stories above ground level and a basement entirely enclosed by a reinforced concrete retaining wall. The building is 100 ft. in length by 50 ft. in width, with one annexe off the main building containing the main staircase and another enclosing the lift. The exterior consists of a reinforced concrete frame with steel sash windows and brick curtain walls built between the columns. The floors were designed to carry a superimposed load of 2 cwt. per square foot. There are two rows of longitudinal interior columns, and four transverse rows dividing the building into bays 16 ft. square. The columns, which are square in section, diminish in size between floors from ground to roof, and are carried on reinforced concrete bases below the basement. The floors are constructed with main beams spanning between the columns, each of which carries the end of two secondary beams on either side, dividing the floors into panels, which are covered with a reinforced concrete slab finished with granolithic to give a hard wearing surface. Provision is made in the secondary beams for attaching the shafting of the machinery. Each floor is connected to the main staircase by an open cantilevered balcony. The architects were Messrs. WALLIS, GILBERT and Partners, 29, Roland Gardens, S.W.7.

MR. F. G. SAINSBURY has prepared a scheme for developing a site in Tilehurst Road, Reading, covering over seven acres, and the immediate erection of about eighty houses.

Major Clayton, late R.A.F., has been demobilised and is about to commence practice as an architect, surveyor and civil engineer in Manchester. He had been already appointed architect to the Bollington Urban District Council Housing Scheme, near Macclesfield, which is in hand. Before the war he was architect to the Calico Printers' Association, Manchester, and not only carried on all their improvements, but also a large amount of research work regarding the disposal and treatment of trades waste water, besides architectural work for the Chairman on his estate in Herefordshire.

Major Clayton's military services, for which he was mentioned in despatches, include staff appointments in the A.C.S. in London and York, where he designed and erected a War Memorial Brass in Rufforth Church, and a Roll of Honour in the Parish Institute; and at Leamington.

The Bicester Urban District Council propose to erect 55 houses on one site of 7 acres. The restricted frontage to the main road necessitated careful development of the rear portion of the site, and economy of road construction was an important factor in deciding the final lines of the lay-out. Twenty-four "parlour" type houses, 30 "living-room" type houses, and one house with shop attached are provided, varying in plan to suit the different aspects. A number of garden plots are provided at the rear of the house gardens. The contract for the erection of the first 12 houses has recently been let, and it is hoped that building operations may be commenced shortly. The architect for the scheme is Mr. H. W. Smith, of 57, High Street, Oxford.

For the Information of Members.

The Library. Gifts of books on Architecture and allied subjects, and Donations to the Library Fund are invited. Books from the technical circulating library are sent through the post, or may be obtained on loan personally by Members on application. The Rules relating to the use of the Library are published in the Year Book, and a copy of the Catalogue may be obtained (free of charge) from the Secretary.

NOTE. The Library is closed for the time being, pending the completion of alterations and decorations to the premises. Notice of re-opening will be given in these columns in due course.

Book Reviews. The Secretary will be glad to receive the names of Members who will undertake to notice books sent for review. They are asked to mention the subject with which they would prefer to deal.

Professional Appointments. Members seeking appointments or requiring Assistants should notify the Secretary of their requirements so that they may be entered on the Register. There is no charge.

Subscriptions. Annual subscriptions are due and payable in advance on November 1st of each year, and Members are invited to make use of the Bankers' Order Form method of payment where possible. A form for this purpose may be obtained from the Secretary.

The Examinations. The qualifying entrance examination for Membership is held in April and October. A copy of the syllabus may be obtained from the Secretary. The Graduateship examination has been discontinued in view of the new proposal for grading the Membership.

Awards and Scholarships. Particulars of the Victory Scholarship, the Travelling Studentship, the Architectural Scholarship, and other awards will be announced in the JOURNAL from time to time.

Professional Advice and Defence. The rules and regulations for legal assistance to, and professional defence of Members of the Society are set out in the Year Book together with the Society's Code of Professional Ethics.

Publicity. The Society has a special department for securing publicity in the Press and elsewhere relating to matters in which the Society and its Members are concerned. Members can greatly assist the work of the Society by keeping the Secretary supplied with cuttings from local newspapers or other information of interest to architects in general and Members of the Society in particular.

Beaux Arts Atelier. As soon as the extensions to the Society's premises are completed the Members will be informed of the advantages to be derived from entering the Atelier and the qualifications necessary for doing so.

Changes of Address. Members are requested to notify the Secretary at once of any temporary or permanent changes in their address so that the Registers may be kept up-to date and the difficulties avoided which arise when communications to Members are returned through the post.

Masonic Lodge. The Lodge meets on the second Wednesday in November, January, March and May, at the Holborn Restaurant. The present Master is Major T. Stewart Inglis, D.S.O., R.F.A., and the Secretary is Mr. C. McArthur Butler. Visiting "members" from other Lodges are always welcome.

Communications. All communications should be addressed to

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The Society is not, as a body, responsible for the opinions expressed by individual authors and speakers.

Professional Workers and Organised Labour.

An article entitled "Should Professional Workers Unite with Labour ?" quotes the opinions of respective Labour leaders and of official representatives of the associations of professional chemists. Prominent Labour men were invited to give their views on this question.

The attitude of chemists on the subject is stated by the National Association of Industrial Chemists, the British Association of Chemists, and the Registrar of the Institute of Chemistry. The current labour view, now, is that the term "labour" includes within its scope all brain and manual workers and that the former should identify themselves with the labour movement, with a view to securing a just distribution of the wealth, which is the joint production of both. A cordial invitation is, therefore, extended to all professional workers to ally themselves with organised labour. The views given on behalf of professional chemists are that chemists, along with other brain workers, must form their own "trade unions," as their interests are by no means identical with those of manual labour, and that chemists are not prepared to commit their professional association to any political party. The danger is, moreover, expressed that technical workers, in alliance with non-technical workers, will find themselves swamped by numbers and, therefore, of no account. The Registrar of the Institute of Chemistry inclines to the view that as chemistry is an individualistic profession, the varied nature of chemical practice and the different degrees of competency requisite make the idea of a "trade union", in the ordinary sense, practically unworkable. (*The Chemical Age*, February 7th, 1920). *The Technical Review*, March 16th, 1920.

Thoughts on Economics in Relation to the Present Crisis.

By Sir Ambrose Poynter, Bart., F.R.I.B.A., M.S.A.

It seems to me that in a discussion such as this, the object of which is to ventilate and illuminate a subject often considered musty and obscure, the speaker should begin by making clear just what he means by the technical terms he employs, for, where abstract questions are concerned, these terms often seem capable of the most varied interpretation. I do not, of course, expect the views I am about to express, and which I partly worked out in a book called "The Coming War," which I published rather over three years ago, to be accepted by you in their entirety. I can at least try to ensure that you know what I mean by the phrases I employ. "Economic" suggests economy, and economy is a word that should have a particular interest for architects, not because we are so often called upon to cut down our costs, but because the two Greek words from which it is derived mean nothing more or less than "house-law," though in the restricted sense of "household management" or "frugal and judicious expenditure." Proceeding from economy to economics, my dictionary tells me that economics is "the science of household management: political 'economy.'" Obviously I am not here to-night to speak of domestic economy, this is not the Ideal Home Exhibition, so let us turn to the second definition of economics as "political economy." Evidently "political" is not used here in connection with party politics. I am, to begin with, no politician—a being who, my dictionary tells me, is "one versed in or devoted to politics: a man of artifice and cunning,"—nor do politics, as we understand them, engender a frugal and judicious expenditure. Political is used here in its sense of "pertaining to policy or government" and *political economy* is defined as "the science which treats of the production, distribution and consumption of wealth."

Now, if I were to take this as the basis of my paper, I might despair of even entering the confines of my subject in the time at my disposal, as it would involve me in a review of the whole structure of society, a limitless subject, and the most debatable that ever was debated.

I will therefore limit myself to that part of economics which treats of the production of wealth, and in this connection I will lay down an axiom, namely, that for the production of anything, wealth included, three things are necessary—brains, capital and labour. From this it seems to me there is no getting away. We may, indeed, quarrel with the distribution of what there is to divide, complain of the reward given to brain work, the share claimed by capital or the wages given to labour—we might advocate the view that capital should belong to the individual, limited companies, co-operative societies, guilds, municipalities or the State; nevertheless, these three factors remain.

I have stated my intention of limiting my discourse to that part of economics which deals with the production of wealth. What, then, do I mean by "*wealth*"? It is generally understood as meaning large possessions or accumulated riches. I do not, however, intend it in that sense. What I intend by it is simply the added value given to raw material or natural products by the united efforts of brains, capital and labour—in other words, the margin left by the selling price of goods or produce over the whole cost of production. It is out of this margin that the riches of individuals, communities or States is accumulated and increased, and further wealth provided. This surplus value may take the form of actual coin—gold for choice—or notes; of the transfer of credit in the shape of cheques or bills of exchange or promissory notes ; of the transfer of shares, or even actual barter instead of indirect exchange of goods by one of the first-named expedients. The acquisition of goods for our daily needs is the object and cause of the activities of most of us, and is generally performed not by direct exchange, but by the use of credit in the shape of cheques in this country. I define wealth, then, for my purposes, as the net increase given to raw material as a result of work performed by the combined efforts of brains, capital and labour.

But that is not all. I have been speaking of brains, capital and labour as if they were abstract entities. They are not. Brain workers, capitalists and workmen are also human beings, and I do not want, where they are concerned, to repeat the mistakes of the early 19th century political economist. His system of " buy in the cheapest and sell in the dearest market " demanded that a large supply of cheap labour should always be "on tap," so to speak,to supply the cheap goods,and in his anxiety for cheap labour he omitted the human factor from his calculations—a mistake for which we are now paying dearly, both in unrest, and in national health. The recently issued report of the Ministry of Health founded on the reports of the physical examination of men of military age by the National Service Medical Boards is a pitiful commentary on the riches garnered in our industrial towns, even when we have made allowance for the fact that before conscription, and the resulting medical examination came into force, a large number of the most healthy and active men had already enlisted. As human beings cannot be ignored in questions of economics, I propose before examining the brains, capital and labour combination for the production, to give a few words to our primary raw material in the shape of humanity. When I come to consider my fellow humans in the main, four things strike me greatly. One, how much more alike are we in essentials than most of us are willing to admit ; two, how enormously we differ superficially ; three, how greatly these superficial differences outweigh the underlying resemblances ; four, what tragic misunderstandings these external differences give rise to. We cannot but admit that, to whatever class or group of the nation we belong, we are all human beings, and as such are entitled to consideration on the ground of our common humanity. All the same, while admitting the claims of our fellows to consideration, we must not forget that the understanding and sympathy born of this consideration should not be used to mask or cloak vital errors of policy and conduct, but to arrive at an understanding of their cause and remove it. Sympathy alone will not do away with the ill-effects of persistently ignoring fundamental laws. It does not, however, suit party politicians or social reformers to recognise this fact. The ends the politicians have in view are better served by representing whole groups of the nation either incredibly infamous or impossibly virtuous, and the politician's view of the infamy or virtue of any particular class or group is apt to depend on its voting power. The centres of virtue are thus continually shifting in accordance with the exigencies of the ballot-box.

The social reformer, on the other hand, persists in regarding humanity in general —with the exception of the individuals or classes who stand in the way of his pet reform—as just short of a perfection which will be attained the moment his theories are put into practice. The politician, then, is prepared to build up his world on ground which he shifts to suit his needs; the social reformer builds his perfect state on an imperfect foundation. Fortunately no class has a monopoly of virtue. But even with the great underlying resemblance we possess in common, how few and far apart are the moments after our essential oneness is brought out by the vivifying emotion ! The war was one of these moments, when we were startled to find out how much we all had in common, but I fear that the unifying effect it produced is, like all effects worked by emotion, quickly dying down. In the long run, small and superficial differences are apt to tell unduly just as a small annoyance upsets the temper more than a great disaster. But I must not continue in this strain and labour this point, or you will accuse me of letting minor considerations overshadow more important ones. I trust, however, that the application of these remarks will become apparent later on.

I have now, in my own fashion, laid down the principles I should like you to accept, and on which I propose to build my superstructure. I have told you with which part of the economic problem I propose to deal—that of production, namely—I have told you in what sense I wish the word wealth to be understood, as representing, namely, the profits of industry, and I have named the three essential elements of production, namely, brain work, hand work, and capital. Further, I have told you that I consider the human element a factor that cannot be neglected, and in this connection I have stated that the human beings who are, in one way or another, employed in hand work, brain work, and the possession or management of capital are essentially alike—more so than they are at all willing to admit, and consequently are well entitled to consideration, not on the grounds of belonging to a particular group in the social structure, but on the ground of their common humanity. If then there is, as far as the human element is concerned, so much that is good, if in addition there is so much accumulated information on, and experience in existence as to, the materials and processes of the business of production, why do we not get better results? There must be somewhere a great misuse and waste of effort, material and opportunity. That we do not get satisfactory results is evident to all; we can hear the wheels of the machine groaning, grinding and shrieking even as they turn; they not only go slow, but threaten to come to a standstill altogether. Let us try ourselves by the touchstone of work. What is the attitude of the individual to his daily work? Let me for the present pass by the capitalist, the professional man, the manager, the foreman, the clerk, the salesman, the advertiser and the traveller, and begin with him who is known as the "working man" pure and simple—to whom the phrase of "earning his bread in the sweat of his brows" the curse of Adam (perhaps not such a curse after all; did not Roosevelt say "Sweat and be saved"?)—is supposed peculiarly to apply. He it is, particularly if he belongs to the painful Trade Union, whose vote is most sedulously wooed; he it is who is told that he, by his personal physical exertions, alone has created and is creating the wealth of the country, wealth which he therefore logically, if the premise is correct, should receive in its entirety. But is the premise a correct one?

Let us examine the claim which is put forward in all seriousness, and which undoubtedly exercises great influence on the minds of men who, working by the hour and paid by the week, do not as a rule think much more than a week ahead of them. Let us, as a fitting compliment to the position claimed for him, examine this man's claim first of all, and ask how he appears when regarded as the sole creator of, the sole contributor to, the wealth of the nation? We can best ascertain this by looking at the organisation of a large works, an engineering works for choice, since in such a works many workmen are employed who rank as skilled men. Begin with the moulding shops, for the moulder has been much in evidence of late. Here many men spend their working hours in making moulds for castings. The arrangement of the wood and metal patterns in the heavy cases rammed full of sand require both skill and experience, a skill which is often hereditary, since frequently a man's father and grandfather have been moulders before him. Possibly the moulder will have a partial, possibly an accurate, idea of the final use of the various pieces he moulds. On the other hand, he may never give it a thought. In any case, he is dependent on another workman for his patterns. He does not make the patterns in addition to moulding them, and if he could, the various Unions would see to it that he didn't. That is another man's job. Patterns are made in the pattern shop, where joiners and turners are employed. This is skilled work, too. Much depends upon the accuracy with which they copy the drawings with which they are provided, and to read which requires both training and knowledge. Then castings have got to be made, and the castings accurately finished by turning and filing and polishing. In their final form they go to the fitter who assembles the parts, and among whom there are sure to be men with a genuine taste for mechanics, and who cultivate their knowledge, while others are content to do what they have to do with a minimum of thought and understanding. And, under these men, are to be found the labourers who work for them—workmens' workmen, in fact—doing the rough and unskilled part of the work, tasks that require strength rather than intelligence, and can be performed by any man of muscle. These, then, are the men who are told that they alone have a right to the title of working-men, and that they alone, by their exertion, are the creators and, as the sole creators, should be the sole recipients of all wealth, a tale to which they are, not unnaturally, inclined to lend a ready ear. What have these different classes of workmen in common where their work is concerned? They have this in common, that the strength, or skill, or combined strength and skill, of each is employed in making or helping to make something in accordance with a design or pattern which is supplied to him by someone else, on whom, for the possibility of doing his work, he is entirely dependent. Who is this someone else? All these indispensable drawings and instruction designs come from the drawing office, where draughtsmen and designers work under the guidance of engineers. What place in the works does this office fill? Here is a quotation from an article on "Drawing Office Organisation," which appeared in the Transactions of the Society of Engineers about three years before the war, which will tell us something of this part of the business of which so much less is heard than of the workshops:—

> "The Drawing Office is now the centre of the nervous system of a factory or works. Briefly stated, the drawing office staff to-day may be expected to draw up specifications and forms of estimate (possibly including prices), to make essential enquiries and calculations on receipt of an order, to lay out the necessary arrangements, to order patterns, materials and special tools required, and to supply the factory with any explicit diagrams and instructions, and to watch opportunities for cheapening production. In all cases the drawing office is the centre of appeal on all matters appertaining to the technical branches of the work."

Evidently then the duties of the engineer and draughtsman who settle the main features of design have their place and value, and must, though the men in the office are neither mechanics or labourers, involve work of some sort, and contribute to the task of production.

Nor are the shops and the drawing office the only departments to be reckoned with. Buying and selling must be taken into consideration. Without these, your works will come to a standstill. So here we get another side of the business. Outside the workshops and the drawing office are other skilled and trained men—not workmen—yet performing what looks very like necessary work. Raw material has to be bought, and to the best advantage, for injudicious purchases may result in heavy loss; and the higher such expenses mount, the less money is left to meet that very heavy item, the weekly wages bill. Goods or machinery once made, have to be sold, or if made to order dispatched to their destination. Fresh orders must be obtained and markets found. In all this, advertising plays its part. Nor is this the end of it. Accounts mustbe accurately kept; points where money runs to waste tracked down, and mistakes rectified. Correspondence has to be dealt with, enquiries answered, complaints met, and doubtful points decided. Foremen and managers are wanted, or so one would think : highly-trained engineers and chemists also. Heads of departments have to thresh out details of management, and be responsible for them. A careful eye has to be kept on finance, so that the necessary cash is forthcoming at the right time for daily, weekly and monthly payments, and for all the necessary purchases and renewals. And while money is going out, it must be ensured that a sufficient supply also comes in, and that there is a reserve to tide over difficult periods. Finally, at the head of all, must be some one man or group of men responsible for the general policy and working of the whole concern. And, as a necessary prelude to all this, either from some wealthy person or from a group of more or less wealthy people, or from an association of subscribers, not necessarily well-off individually, capital has at some time or other been provided, or either capital raised to keep going or extend an existing business. Or perhaps instead of borrowing, an energetic man or group of men who are possibly workmen of particular enterprise and ability, may have obtained with a little capital provided by their own savings and with the extra capital afforded by their own skill, knowledge and intelligence and, adding to plant, stock and buildings out of profits, have built up capital as they go along. If you examine the life history of any business, including a workman's co-operative association, you will find the same story. So it appears that in all businesses, great and small, besides the mechanic and labourer, there are many workers in other departments busy drawing, designing, accounting, buying, selling, despatching, corresponding and making decisions, people whose labour, if it be true that manual labour is the sole essence of wealth, is quite superfluous. So either the owners and managers of capital, whose life's business it is to deal with money, know their money-making business so well that they pay unnecessary people to do unnecessary jobs, or else the labourer and the mechanic are mistaken in their estimate of their position, the idea, namely, that by their physical exertions they are the sole creators of wealth. It would almost seem as if they were mistaken, and that the truth is rather that, instead of forming the whole chain, they are, like the others, only links in it.

We have now considered the workman in his position in the task of production, and it has appeared that he is, with many others who are not classed as workmen, one of the links in a complete chain. After considering the nature of his task, we have to consider how he performs it. There we are confronted with a paradox so contradictory that the hydrostatic paradox alone seems comparable to it. It is this, that it is possible for an increase in the hourly rate of pay to result not in an increase, but in a decrease of output, whilst at the same time there is not necessarily any increase in the average total weekly wage earned. It would seem, and the notion is a disheartening one, that the British workman is apparently, in many cases, indifferent to earning more when it is in his power to do so, and indifferent to the advantages that more brings. I need hardly point out that in saying this, I am referring to normal times, for we all want more now to meet the increasing expenses of daily life.

We get, then, this state of affairs, that an increase of wages may result not only in a decrease in the number of hours worked per week, but in the amount of work done per hour—in other words, with improved pay it is quite possible for the output to decline both relatively and absolutely.

In other words, an increase in wages often results in a decrease of effort. This is a disquieting fact ; it is, I believe, a policy disastrous to the men themselves.

What is the reason for this state of affairs, which was forcing itself upon our notice before the war? I cannot go into all the reasons—for it cannot be attributed to any one single reason—but will try to indicate what seems to be the chief.

There is to begin with the restriction of output enforced by Trade Unions as a matter of avowed policy, and under the belief that by this expedient competition between man and man by which only the employer benefits, is prevented, and wages maintained.

Then there is the idea firmly fixed in many of the men's minds that by restricting output they are creating work, though it is difficult to see how you create any work except unnecessary work, by not doing it! In this way he thinks he is creating more work by distributing the work among more men, thereby helping his fellows and scaring away the spectre of unemployment. Also he feels that he is prolonging his period of employment by lingering on his job. Then there is the policy, not very openly avowed, of the men at the back of the Labour Movement—the tails who aspire to wag the dog—which aims at ruining the capitalist by raising wages and reducing output until the capitalist finds that his business no longer pays him when the whole concern will fall into the workers' mouths, ripe for consumption. Then, again, important to us and ranking high as a cause of discontent, is the shortage of houses. Its origin is surrounded by political dissensions, its existence and results are plain, and will be touched on later.

Finally, I must mention the general feeling of unrest often attributed and rightly in part, to the war—vague, ill-defined, yet none the less apparent. I think that it has another cause beside the war, which I have not yet heard referred to: the consciousness on the part of labour that it has come of age, so to speak. Those of us who have come of age found when we did that the age of twenty-one wrought no magical effect in us, though our legal responsibilities were enlarged. Nevertheless, we were conscious of a change of some sort; we expected things to be different somehow; felt that we were entitled to be considered as "grown up," entitled to greater consideration and inclined to resent it if we did not receive it. We mayn't have deserved extra consideration, but we were annoyed if we did not get it. So after all there was a change, and the change reacted on others around us. I think labour is permeated by a feeling of this sort, and with all this there is a consciousness on the part of labour that it has been unduly exploited in the past and does not intend to be so exploited in the future. Unluckily the consciousness of this fact does not bring with it the knowledge of how to prevent its repetition; but be that as it may, this factor has to be reckoned with.

All the difficulties I have just enumerated were in existence before the war, and the position has since been made more intricate by the network of complications woven by the war. There is the question of the shortage of raw materials, manufactured goods, and food of all kinds consequent on a five years' suspension of disturbance of normal production. There is the shortage of shipping, caused partly by Germany's unrestricted submarine warfare, partly by the increased demands on the tonnage left, and the dislocation of transport caused by Government interference. With a shortage of ships comes high freights. The abnormal state of rates of exchange for money between various countries is cited as another adverse factor, as is also the issue of paper money by so many countries during the war. On top of all this are strikes, the existence of "rings" and trusts and general profiteering all round by master and men, too, I am afraid when they get the chance. Between those two millstones the unfortunate professional man is being ground.

I need not dwell on the greater part of the factors just mentioned; they have been discussed and explained in the papers till we ought to know all that there is to know.

I need but remark in passing that Government interference in every business appears warranted to turn a profit into a loss in the shortest possible space of time, and that the existence of a large bureaucracy has not made us fall in love with this system of Government. As regards paper-money, I should like to say a few words of explanation, as the large issue of paper money which has been blamed as a chief contributory cause to the rise in prices and wages also, and to the fall in the purchasing power of money. I think that is not really a correct way of stating the facts, for it is not, it seems to me, necessarily a fact that a large issue of paper-money *per se* brings about an inflation of prices ; it is not so much the large issue of paper-money that is to blame but the conditions under which paper-money is generally issued. A large issue of paper-money is generally made to provide for the needs of war, that is, to pay for munitions and supplies of various kinds. Now I defined wealth as " the added value given to raw material by the combination of brains, capital and labour," but in the case of money spent on warlike supplies no wealth is produced for, the added value given by the brains, capital and labour employed in producing them is at once destroyed, and no added value remains as a stepping-stone to the production of more wealth. The result was and is an enormous quantity of borrowed money issued as notes, guaranteed on credit of the nation—that is finally, on the taxpayer's ability to pay taxes, with no increase of wealth, since the material so produced is sooner or later completely destroyed. With all this there are many people with a larger margin for spending, in the shape of profit, than they ever had in their lives before, and many, indeed, found themselves with a spendable margin for the first time—and a diminishing quantity of necessities on which to spend their money. Prices steadily rose ; you got less and less for your money, in other words, its purchasing power diminished, while the quantity in existence increased. This is a picture of what invariably happens when paper-money is issued on the credit of a nation to be spent on warlike stores and munitions. But supposing that instead of borrowing this money for warlike, we had raised the sum for peaceful purposes, a great loan for the object of increasing the general welfare of the country—the national health and prosperity—and that the great sum we have raised for war had been spent on building houses, improving our towns, improving our railways, our canals, our roads, our harbours, our warehouses, in helping industry and agriculture in a dozen different ways, and paper-money issued for the purpose of providing the currency necessary for these operations. The issue of loans would then have been not on wasting assets, but on assets increasing in value, and the notes issued would have had to back them, an increased quantity of goods and produce bringing in wealth. In this case the purchasing power of money would not have been diminished. I think I may safely say it would have increased, or remained nearly stationary. My hope is that with the increase of production the time will come before too long when the number of notes in circulation will not be in excess of the requirements of trade and manufacture, but will balance them—when prices will tend to fall.*

Then, again, we have the restriction of international commerce brought about by the irregularity of exchange. This is a complicated subject, and has to do with credits and paper-money. Paper-money for war purposes does not, as I have said, produce assets, and is backed by the credit of the nation, the taxpayer, in fact. When the taxpayer is ruined, as he is for the time-being in Germany, the value of the paper-money falls almost to zero outside the country where it is issued for this reason, that goods have to be purchased outside the country of issue and to bring these goods there are no other goods offered in exchange, so that money has to be borrowed for the purpose. The borrowing country is in the position of a man who has no income and who does no work, but who borrows money to buy what he needs. His credit is consequently nil, and his paper valueless. In this way the interchange of goods is hampered all round.

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* This supposes of course that the number of notes now in circulation is not increased.

I fear that I have already said so much in a general way on the causes of our difficulties that you must feel it is high time I said something as to the way out of them, leaving Sir Charles Ruthen to point the moral by actual examples from his own experience.

I will merely point out that as a result of every error in economics the labourer and workman are the chief sufferers. They are at present, I fear, helping to raise rents against themselves. The chief victim of the scarcity of houses is thus engaged in retarding the arrival of the only remedy, viz., more houses. And I should like to say to those who believe that high wages and low output afford a short cut to an industrial paradise that the present advantages they enjoy are exceptional and cannot last for long. Great Britain, thanks to the demand for labour, combined with a world-wide shortage of goods and materials, is in the position of a country with a high protective tariff on imports. The growth of external competition will, slowly but surely, have the effect of bringing down prices. And in the face of these falling high prices high wages can only be kept up by high output. The chief competition we shall have to face is not cheap Continental labour flooding the market with cheap goods. The man you will have to reckon with is the American workman, whose output is two and three times that of the British workman, and whose labour cannot be called cheap as far as wages are concerned.

I have said a great deal about mistakes and shortcomings. What is the remedy? The remedy, I venture to say, is to be found in economic honesty, in not trying to flatter people when you are certain that what they are doing is against their own and so against the national interest, but in trying to make clear to them the truth of certain facts. The only answer to statements of opinion is the economic answer clearly and reasonably put, and that part of the economic answer that should be dwelt on consists in such axioms as I have laid down this evening, which I believe to be facts that cannot be changed, whatever our opinion may be as to their pleasantness or unpleasantness, whether we are Free Traders or Protectionists, individualists or syndicalists. The combination of high wages and low output with the object of increasing employment—an object which seems to me to involve a self-evident contradiction, though clearly it is not self-evident to many people—is not a profitable expedient, and will not reach the goal aimed at, which is of course steady employment at good wages for as large a number of people as possible. The Trades Union policy of a minimum output with a maximum wage is bad for the men who take part in it, and is bad for the individual, and consequently bad for the nation as a whole. The skilled workman is discouraged comparatively early in his career; he soon reaches the highest wages he can hope to attain to, and extra exertion and extra skill profit him nothing. The less skilled and less conscientious man is his equal. The policy of Unions as to piecework differs; the engineering and building trades discourage a method of working which is an incentive to effort, but which other Unions manage to admit. In these matters the masters must take their share of blame for a short-sightedness (equal to that of the men in other ways) which, finding that under piecework a workman's earnings increase greatly, cut his wages by putting him into a lower category for pay, under the pretext that he is "earning too much," which a man cannot do, if he earns it. And those contractors, too, are much to blame (we heard of them during the war, and they are not yet extinct), who, when carrying out "costs plus percentage" contracts, crowd into a job more men than it can carry, and are quite willing to see those men doing nothing half the day, so long as they can pocket their percentage on the wages paid them. Few men who have earned money in this way and who have had such a lesson in dishonesty are likely to become willing workers when conditions change.

Nor is the organisation of every business invariably so excellent as to tend to produce the greatest output for that business. I think the remedy will be found on lines that are already being worked on with success, and which I admit must be slow of general adoption, as they must, to begin with, be put into operation by men of exceptional personality. These are open discussions between all concerned with the utmost publicity for such discussions, leading to a place for the workman's representatives on questions of management. Indeed, I understand from recent utterances of some of the employers that this is what they are really yearning for, and that they welcome the idea with open arms. In this case, I can only say I am sorry they did not discover this idea and act upon it fifteen or twenty years sooner, for we should by now be getting the benefit of it. Much ill-feeling and misunderstanding might have been avoided had the men been initiated into the mysteries and difficulties of running a large business. Not every business is a paying one. Some do nothing at all for years but pay wages, and having paid wages, fail in the end, but this aspect of matters is, as a rule, carefully avoided while the profits are always enlarged upon.

A computation of the amount paid in wages by businesses that have failed would be an interesting study, as would be a demonstration of the small margin which in many businesses divides profit from loss, a margin which may suffice to pay a moderate interest on capital but which would make a negligible sum if added to the weekly wages. All these things are worthy of study.

Gentlemen, I do really believe that by open discussion and acknowledgment of what management means, and of what has to be done to provide the weekly wages bill, much can be done (and is being done), and that it can be shown that a steady output, not, as I say, a " driven " output, but a normal output, by a man steadily putting forth his powers without strain, is a wholesome as well as a profitable thing for the workman. It creates what I may term a " factory value," which is of benefit to the whole establishment in which the workman is employed, not to the employers alone, but to the employed, as well as to the nation at large. For work brings work, and delay and irregularity in fulfilling orders repels it, and discriminates against the factory, or works, or shop where such output prevails. What may be aimed at, and should prove acceptable, is the scheme of a minimum guaranteed output with a minimum guaranteed production, plus a bonus (calculated on the whole extra output) for extra production, equally divided among the men. A fair wage for workmen, a fair price for the consumer, a fair return for capital after labour has had its share, a margin of profit in addition, to provide that increase of capital which is the life-blood of industry and the source of more employment, a share in the management sufficient to let the workmen know where the difficulties of running a business arise,—this is a proposal that does not originate with me, but commends itself to me as a fair one. It offers little scope for the extremist and small prospects for the vote-catchers, while it demands, of those who try to put it into action to begin with, exceptional personal qualities. It is not therefore easy of adoption. Yet I believe that a remedy can be found in the way I have indicated, because the people concerned are for the most part Englishmen, and the fair-mindedness and, what is a part of fair-mindedness, the sporting instinct, of Englishmen, has always by discussion and argument found a remedy for their difficulties in the past, and I am not aware of any changes in the national character to prevent this in the future. And if increased production will not come by agreement, it will come by necessity. Competition will set in again, and we shall have to work harder or go under. Which is less pleasant than doing things by agreement. But I pin my faith to the good sense of my fellow-countrymen in the long run.

NOTES BY SIR CHARLES T. RUTHEN, O.B.E., F.R.I.B.A. (SENIOR VICE-PRESIDENT.)

SIR AMBROSE POYNTER has dealt in general terms with the complicated and abstruse subject of Economics relative to and affecting the present national crisis.

As architects, we are naturally more deeply interested in the specific application of economics to the building industry, than the general application of this involved science to all aspects of the existing national industrial and social crisis. It is, however, obvious that the basic cause of the existing state of affairs, is the same ; whether consideration be directed to its effect upon the building industry, the coal, steel, shipbuilding or indeed any other great national industry.

I propose to confine myself very shortly to the problem of economics as affecting the building industry, and to what almost appears to be an insolvable tangle in the great and extremely urgent need for the provision of houses for the people.

It is to be sincerely hoped that the Britons of to-day will not follow the example of the Britons of the fifth century, who according to their old historian, having been relieved of the incessant oppression of ferocious enemies, immediately fell victims to their own vices. Generally speaking, the effects upon national character of war and of long periods of peace, have been fairly constant.

During the apparent continual quarrels among the small Greek States, not one of which was larger than a small British county town, there were laid the foundations of practically all that counts in modern art and literature as well as in some branches of science. The great empire of Alexander eventually intervened and settled these interminable quarrels, but at the same time, effectually closed the glorious page of Greek history.

Is it possible that great creative work must have as its accompaniment, the horrors of war, and that such creative genius must wither and decay during periods of peace ?

The great change that has come over this country, and everyone will, I think, admit that a great change has taken place—in fact, a change has taken place over the greater part of the civilised world—appears to indicate that to the average worker the whole scheme of life in pre-war days seemed an aimless chaos, and that the war provided the first opportunity for real self-expression.

There would appear to be no hope of harmony between Capital and Labour, until both are persuaded to approach their problems from an entirely new point of view.

Our social relationship cannot be improved until the meaning of the processes of industry is thoroughly comprehended by both Capital and Labour, and until the ultimate value to the individual and the community of such factors in their relation to production and profits and wages is fully understood.

It must be agreed that production is good or bad for the individual and for the community, just as profits are likewise good or bad. High wages, regulated hours and improved conditions of labour are also distinctly good or bad for both the individual and the community. All these things are far too important and too closely associated with the vital issues of life to be merely incidental.

A great change has, as it were, suddenly taken place in the outlook and conditions of life. Change we all know is eternal, but we must not be content as we have hitherto been, simply to adapt ourselves carelessly, we must attempt to control and fashion these changes. We can certainly endeavour to give some conscious direction to these changes which all know are inevitable.

The British Isles have a population of something like 45,000,000 and comparatively few in pre-war days and fewer to-day, have as many of the good things of life, that is to say the necessary good things, as they would desire to possess.

The housing conditions in this country before the war were, I think it is now fully admitted, a disgrace to civilisation and the great labour unrest had its inception I am convinced, in the disgraceful conditions under which the great mass of the working people were condemned to exist.

It will, I think, be generally admitted that before the outbreak of the great war, we had reached a condition far removed from a peaceful social life. The entire nation was divided into factions, each struggling for its own part, regardless of the general interest. The war with all its ghastly story, hastened the process, which inevitably was in the making.

The discontent of labour arose because society, developed upon undefined lines, left no place in its processes for the ranks of labour. Millions of men never seemed to realise they were alive until the war came. Their lives had been spent in work, without any conscious aim in life. They became obsessed with the idea, born of false doctrines taught in war exile, that they had worked to make others rich. They refused to admit that all that is best in life they owed to brain and not to muscle, and they set up the claim to the sole right of the title "worker."

Not very long before the outbreak of the war, it was asserted and with a certain accuracy that between one quarter and one third of the people of the British Isles were living upon the border of starvation. The proportion being the smaller or larger fraction according to the opinion as to exactly where lay this border line: some fixing the line further from the central standard of comfort than others.

The truth of the statement that the American workman was better clothed than his British comrade in those days was well recognised. The shortage in school accommodation for the education of the children was also fully well-known. The third great disability under which the workers of this country laboured was the absolute famine in houses. For years this increasing famine had alarmed those who gave the subject careful and serious attention ; but the community as a whole was quite content to trust to the unregulated and unsatisfactory results of supply and demand for the solution of this the greatest of all social problems.

I have stated on many occasions lately and I do not think the statement has been controverted, that the shortage before the outbreak of the war, in houses for the people reached at least 250,000. If therefore, the average size of a family in this country be placed at five persons, we have one and a quarter million people without homes. If we want to build however, not merely to supply the bare necessities of, shall I say the commercial situation, but for realisation of the full national life, which is the goal of our conscious aim, this figure of one quarter million houses is preposterous and perhaps should be nearer double that figure.

This was the state before the war. How do we stand nationally in respect of houses to-day ? To meet the bare necessities of the people we must have at least three quarters of a million houses, perhaps even a million houses. Taking, however, the former estimate, and applying the calculation of five persons per house,we find that three and three-quarter millions of people are without the bare necessities of life in so far as housing accommodation is concerned.

No one will deny that the provision of adequate and satisfactory homes for the people is an absolute essential of a happy, peaceful and well-ordered national life, and no one certainly will admit that this essential has ever been fulfilled in the past.

What was the cause contributing to the shortage in pre-war days of the homes so urgently needed for the people, and why was the known annual deficiency in houses allowed to accumulate year by year until it reached such alarming proportions?

We know that the deficiency in pre-war days was due to the failure of the supply to meet the demand and that the supply lagged behind the demand simply because those agencies in whose hands rested the provision of houses, considered rightly or wrongly, that the supply of the most needed type of workers' home was not an economic proposition and therefore the efforts of these building agencies were directed in other and more satisfactory channels.

As wages increased, and as hours of labour were reduced, so the cost of building gradually, but surely increased ; but I think it will be generally agreed that there has been for many years a "dead set" against the paying of higher rents.

It appears to be obvious that unless rents advanced as the cost of building advanced, as represented by higher wages and reduced hours of working, the time was necessarily bound to arrive when that type of house with rents fixed arbitrarily, as it were, without a definite and proper relation to the cost of production would cease to be built.

I have said on many occasions that the law of supply and demand in the pre-war sense, in respect of houses for the people is dead. As in pre-war days when the supply of the necessary type of house so urgently needed was rapidly falling behind the demand, so to-day, but unfortunately in a much greater degree, the demand for houses was not and is not at a price above the cost of production but at a price below the cost of production.

At the present time there is an unaccountable obstinacy upon the part of the "worker" to pay a price for the product of his labour commensurate with the wages he obtains for the manufacture of this product.

When in pre-war days there existed a large section of the community, whose wages were too low to enable them to pay an economic rent for a reasonable and proper home, I advocated and feel sure that my advocacy was justified, that the community at large should have taken over the provision of the homes for these people as in the nature of a public service : that such a service was equally as much the duty of the community as the provision of a good water supply or a proper and satisfactory drainage system : that the difference between the economic rents of such houses and the rents possible of payment by these low waged workers should have been a charge upon the community or alternatively that the wages of these people should have been raised to enable them to pay an economic rent.

The former proposition in my opinion has disappeared in the light of present post-war circumstances, and I think it is universally agreed that the worker should earn sufficient to enable him to pay the proper rent for a proper home.

That houses must be built to-day at a cost that prohibits the obtaining of an economic rent is an impossible proposition and will eventually lead to the claim that all other things required by the people should be manufactured and disposed of at a price below the cost of production, which is absurd.

The cost of all articles whether houses or boots and shoes, whether clothes or bread, must increase proportionately as the wages of those engaged in the manufacture increases, or as the hours of labour of those so engaged are reduced, so far as such reduced hours limit production.

What then is the difficulty in connection with house building? Has the cost of building increased in the same ratio as the increase in the wages of the workers and the reduction in the hours of labour? I suggest that the entire trouble arises from the fact that the answer to this latter question is in the negative.

The essential processes of genuine constructive effort are, without question, production and profits, and there can be little doubt that the nature of these essential processes is neither understood by employer or employed.

The real root trouble to-day and the chief cause of the present serious national crisis, is restriction of output. Is this restriction attributable to the refusal upon the part of the manual worker to maintain a reasonable, or shall I say, pre-war output, or the refusal upon the part of the brain-worker to apply himself to the problems of life?

We all know that this refusal to maintain output is a fact, whether it be in the deliberate limiting of individual energy such as is so apparent in most branches of the great building industry where individual effort counts for so much, or in the refusal to accept labour-saving machines in other great national industries.

We read that America has 35,000 automatic looms whereas this country has only 12,000 and that only 8 per cent. of our coal is cut by machinery, where America cuts 50 per cent. of hers mechanically. In this latter respect alone is explained the reason for the steady increase of prices in this country. Germany was in pre-war days steadily beating us in the markets of the world in the cutlery trades, because of the adoption in that country of the best machines and the best methods.

According to the Census of Production, British industries used only one-third to one-half the horse-power per thousand workers that America used.

To-day architects are getting desperate over the question of building costs. No part of the great science of building has received more attention during the last ten years from the members of this great profession, than that affecting the building of homes for the people. In domestic architecture, British architects are in the front line. Architects have always been blamed for the inferior houses in which the great mass of the people have been and are forced to live; but in reality architects have had little to do with these houses. The pre-war house of the worker, before the days of the Garden City and the Town Planning movements, in the vast majority of instances, had no assistance in its construction or design from the architect. His services were almost always considered quite unnecessary and the fees for his assistance, so much waste of money.

Houses were built in thousands "like all other houses," erected by the mile, and the architect was engaged only and not always even then, to prepare a simple plan of a stereotype house, for submission to and approval by the Local Authority. Any attempt upon the part of the architect to obtain a variation of plan or design, more particularly if that variation necessitated the use of a little more land per house (as it generally did), was immediately vetoed. The speculative builder either "off his own bat" or upon instructions from the future building owner, gave directions to the architect for so many houses upon a certain piece of land, of exactly the same frontage, depth, and plan, as those already in the same street or in some other street.

When the Garden City idea and Town Planning principles became better known, the architect had his chance and used it to the full. His great trouble was always the fixed cost or almost fixed cost per house, We all remember the cottage exhibitions held in 1907 (Sheffield), 1908 (Newcastle-on-Tyne) and 1910 (Swansea), when the National Housing and Town Planning Council did so much towards the better planning of areas and of houses.

Prizes were awarded for the best money value, and in the case of the last-named exhibition (as I think with the others), there were four classes of houses.

Class A was a cottage with two bedrooms, living room, and scullery with bath, and the maximum cost was not to exceed £175.

Class B a cottage with three bedrooms, living room, scullery and bath; maximum cost £200.

Class C a cottage with three bedrooms, and bath room, parlour, living room and scullery; maximum cost £225.

Class D an open class, number of rooms not specified; maximum cost £350.

The maximum prices were to include architects' fees, and builder's profit, but not fences, boundary walls, cost of papering or colouring walls, but included connections of drains to sewers in the roadways.

This was only 10 years ago.

Architects from all parts of the country put their very best efforts into the designing of the houses erected in these exhibitions, but were criticised even then for the smallness of the rooms and the lack of many little accessories that go so far to make the home comfortable. It seems in looking over these conditions and examining the plans of the cottages erected, that the results obtained for £200 and less, were truly wonderful.

What has happened since these days to make the position so absolutely hopeless, as it is to-day?

The cost of common bricks (at works), in pre-war days was, say 24/- per thousand. To-day the same bricks are 84/- per thousand. A superficial yard of 9 in. brickwork in pre-war days cost 7/6, to-day it is 26/-.

Masons received in pre-war days, 9d per hour, now they receive 1/9; labourers had 6d. per hour and now receive 1/6; joiners 9d. per hour and now are paid 1/9.

Brickwork in the same part of the country where the above prices ruled, was executed at the rate of 750 bricks per man per day (average). To-day, I am informed and am satisfied that the information is correct that the output per man per day does not average more than 250 bricks.

A block of cottages erected in 1885, cost of labour only (brickwork only), £700. In 1912, the same amount of work cost for labour only £1,740.

Of the total increase in the cost of the labour upon this piece of work, £100 was due to increase in wages and £940 was the national loss due to diminished output.

The cost per superficial yard in 1885 for the labour only of 9 in. brickwork was 8½d. The bricklayer being paid 9d. per hour and the labourer 6d. per hour.

In 1912, the same labour cost 1/9 per superficial yard. The bricklayer being paid 10d. per hour and the labourer 7d. per hour.

In 1920, the same labour (for one superficial yard of 9 in. brickwork), costs 9/4. The Bricklayer being paid 1/9 per hour and the labourer 1/6 per hour (assuming that one labourer attends to one mason).

In 1920, the cost therefore of a similar block of cottages amounts, for brickwork only (labour only) to £9,360. Compared with pre-war costs the increase in the cost of this work as a result of increased wages is £1,543, and the increase in the cost of this work as the result of restricted output is £6,067.

The reason for the great increase in the cost of building is to be found in the fact that there has been without the slightest doubt, a great diminution of output.

Upon the face of it, it appears fairly obvious that a cottage which in pre-war days was built for £200 cannot cost £800 and even more, if only increased wages are to be taken into account. There must be and is a much more important explanation for the amazing rise in the cost of the work.

I think it can be fairly easily proved that of the difference of £600, between the pre-war and post-war cost of a £200 cottage, at least £200 is accounted for by restriction of output upon the part of those engaged in the various branches of the building industry. If there could be an acceleration to quite a small extent of the pre-war output, I believe the £200 pre-war cottage should not cost more than £500 to-day.

The employer who refuses to be educated, who embraces old-fashioned methods, and does not accept new conditions is limiting output, and doing untold injury to the country. The worker who refuses to use new machinery or adopt new methods or deliberately reduces the quantity or quality of his output is also injuring his country and bringing untold misery upon the community and particularly upon his own class.

There is no greater fallacy than the widespread belief, unfortunately common to-day in this as well as in other countries, that the limitation of output reduces the possibility of unemployment or that there is only a limited amount of "work" in the world, and that therefore if the output be increased by individuals there must inevitably be over-production and therefore unemployment.

The doctrine that the world can only make use of a limited quantity of manufactured articles and that if this quantity is manufactured in the cheapest and most rapid manner, thousands would quickly be unemployed, has been so assiduously taught in this country during the past few years, that the workers have become obsessed with this doctrine. Even in the light of the education produced as a result of the war, many despair of ever removing the effects of this utterly false teaching. The industrial future of this country and indeed of the world is irrevocably bound up with the necessity for the removal of the baneful influence of this fallacious doctrine. It is impossible to exaggerate the seriousness of the bearing of the pernicious doctrine of restriction of output, upon the grave national problem of housing.

Something like 200,000 workers are required to repair the gaps caused by the war, in the ranks of the building industry. With a full and unrestricted output, the building industry has to-day, only 75 per cent. of its pre-war capacity.

To erect 200,000 houses per annum, and this should be the annual supply for ten years 500,000 men are required, and these men in order to carry out such a building programme, will be required to maintain their full pre-war output.

The engagement of such a number upon house building alone, would leave less than 200,000 men for all other building work throughout the country, and would demand the recall of many thousands of building trade workers, who have gone into other trades, chiefly engineering and mining.

What are the actual facts in regard to housing progress? And from these facts are we not bound to view the future with grave misgivings?

During the past six months only 560 houses and flats have been completed and ready for occupation. The normal requirement in this self-same period is 50,000 houses, without a single house towards the 750,000 deficiency. A further 992 are, we are given to understand, nearing completion.

The average cost of the completed houses, has been £757, exclusive of land, roads and sewers. The highest weekly rents (so far approved), for the houses, is 20/- per week and the lowest 7/- per week in each case exclusive of rates.

The actual number of schemes for the laying-out of areas, approved of by the Ministry of Health to date, is 4,606, comprising in all 36,000 acres.

The number of schemes for the building of houses, approved by the Ministry of Health to date, represents 111,426 houses.

If the progress to-day was comparable to any extent with the above record of schemes submitted and schemes approved, there would be some likelihood of the housing problem being grappled with effectively.

Unfortunately, all these figures of schemes submitted and schemes approved for the laying-out of areas and for the construction of houses are, after all, only paper figures. I do not for a moment suggest that the progress in connection with house building has not been considerable, but I do definitely state that unless this progress reaches to such a point that the output of houses exceeds 100,000 per annum, *i.e.*, the normal requirements of the population of England and Wales, this country will drift into a state second only in its serious nature to that had we been unsuccessful in the Great War just closed.

It is interesting to note that the Ministry of Health hope to complete 200,000 houses in one year, and although half this period has passed the total schemes approved represent little more than half this number.

Although I think national housing, so far as it has suffered as a direct result of the war, deserves a great national grant to help in re-establishing at least its pre-war position, I believe there is a very serious danger ahead from the economic point of view.

It is reasonable to suggest that if millions per day could be found to carry on a gigantic war and gain a great victory, at least three month's war expenditure can be found to put housing in a reasonable position and so save grave internal national discontent. I think, however, that with production brought up to a pre-war level and wages fixed at a proper and reasonable amount, houses should be built and I think one should say houses must be built at a cost rendering certain possibility of the obtaining of economic rents.

Mr. W. H. Leverton seconded the vote of thanks to Sir Ambrose Poynter, and proposed one to Sir Charles Ruthen. The points raised by both speakers were difficult to discuss, but Sir Charles Ruthen's statement that a great many people thought an architect's services could be dispensed with, emphasised the need for the education of the public in the duties of an architect. Some thought architects were only wanted when a very ornate building was required. Sir Ambrose Poynter evidently did not intend to rest on the laurels of his name. His paper was eminently practical and the root of all the evil seemed to be the limitation of output, which he (the speaker), thought was due to some extent to the system of education which had been going on for a good many years. They used to train up a boy to give and take and deal honestly with his neighbour, but the system of education of late seemed to be to cram for competitive examinations and best everybody as much as possible.

MR. PERCY B. TUBBS, F.R.I.B.A., PAST-PRESIDENT, in seconding the vote of thanks to SIR CHARLES RUTHEN said he thought a very great deal of economy might be effected if some builders and contractors organised their businesses on more economical lines. The foreman had a very great function to perform, and was not always perhaps as competent as he might be, for instance in arranging for the delivery of the materials when required, so that the workmen were delayed. MR. TUBBS was not at all sure that sub-contracting by the main contractor was a sound policy, and sub-contractors' profits might be saved if the contractor's business was better organised. Again, if it could be arranged for the public to buy their own houses instead of renting them it would effect an enormous economy. Directly a man became the owner of house property, even if he only paid part of the purchase money and raised the balance on mortgage, he became proud and careful of it. By encouraging people to become house owners millions a year might be saved, as if workmen felt that it was in their own interests to become owners they would have as an object the keeping down of the costs rather than the getting of the greatest amount of wages for the least possible amount of work.

MR. HERBERT FREYBERG, F.S.I., MEMBER OF COUNCIL, thought that one of our difficulties as a nation was that although ultimately we came up to the scratch, we would never face a thing until we were obliged. He had attended conferences all over the country, and took a great interest in and spent a great deal of time on the Housing question, but had always come away with an uncomfortable feeling that after all the talking, nothing would be done, and nothing was done. It should be pointed out to the working classes that this tremendous neglect before the war was the sole reason for unemployment in the building trade. The work was there for them to do, it was wanted for the country, but somehow or other it was never carried out. In his opinion, the Finance Act was really most disastrous. In 19 out of 20 cases where a man bought a property, from a half to two-thirds of the money was provided by somebody else. It was an arrangement which worked very well indeed and to the advantage of everybody, but when the Finance Act was passed, the mortgages began to be called in. He was in sympathy with the remarks made by MR. TUBBS, in reference to the management of the builders' businesses because so many of the people who called themselves " Builders," knew as much about building as he did about navigating a battleship, and if there was any structural work to be done, they had to give it out to sub-contractors. MR. TUBBS' proposal that people should own the houses they live in was one which he had always advocated. Some people, in the south more particularly, moved every threeyears, and as each move cost at least one hundred pounds, if a man stayed twenty-one years in a house, he would save, say seven hundred pounds towards buying it. He understood that in the Midlands and North, people often lived forty years in the same house. The Government, he thought, by giving the Building Societies some kind of backing would encourage a great many persons to come forward, who, if they could borrow say seven hundred pounds, would at once give an order for a house costing £1,000. If the Government could guarantee a few millions like that, he thought one of the methods of solving the housing question would be found. That would only solve a part of the difficulty, but he had always felt at the conferences to which he had previously referred that everybody had a scheme for dealing with the problem twenty different ways. If as MR. TUBBS suggested, an improvement were made in this one direction it would be better than standing still or having this great want apparently never satisfied.

MR. C. MCARTHUR BUTLER, F.C.I.S., SECRETARY, said he did not quite follow MAJOR FREYBERG's contention as to the saving to be effected by staying in a house twenty-one years. His own experience was that in the past tenants had found it less costly to move every three years than to have Spring cleanings. The difficulty now was not to get tenants to stay but to get rid of them. He did not know that anything very new had been put forward that evening; it had been stated by a well-known builder not very long ago that part of the cause of delay in building houses was due to war-weariness and that restriction of output was partly the result of the years of difficulty and strain they had all gone through. However, they could not afford to wait, increased output was wanted at once, and he thought that there was a good deal in Mr. Leverton's remarks on the present system of education, which in his opinion did not encourage boys or girls to take up the occupations or trades so essential to the well-being of the country. Someone had suggested a Government grant, but he was not sure whether it would increase output, and if it did, it meant subsidising one section of the community at the expense of another. He would like to see architects confer with builders and operatives, and cultivate a much closer relationship with the actual people concerned in the production of houses. There should be some way of convincing all concerned that increased output rather than restricted output was the way to deal with the unemployment bogey. He appreciated all the dangers that previous speakers had referred to, but it was very difficult at short notice to deal with the point raised. However, the paper and discussion would give them something seriously to think about and no doubt enable them to formulate some constructive policy in due course. In the meantime, SIR AMBROSE POYNTER and SIR CHARLES RUTHEN were doing a public service in airing their personal views, as it was not everybody who had the courage to invite critcism in that way. He hoped that the publicity given to the matter would result in eliciting many other opinions, and that the Society would thus be able to contribute something useful to the solution of a most important problem.

MR. LEVERTON referred to a suggestion made by the Mayor of Westminster, that if people were supplied with the necessary materials, they might set to and build their own houses in their spare time. The argument was that during the war, hundreds of people had learnt to do things they never did before, and a man working for himself might in two or three evenings do what an ordinary workman took a week to accomplish.

MR. J. HERBERT PEARSON, MEMBER OF COUNCIL, said that architects and employers were not always careful in the way they selected their builders. Major Freyberg had already mentioned the fact that many so-called builders were incapable of doing structural work. Even among those who were qualified to build he found that it was desirable to employ one firm for a particular class of work and to go to another firm for a different class of work, although both firms were qualified contractors.

MR. EDWARD J. PARTRIDGE, F.S.I., PAST VICE-PRESIDENT, thought that the question of education was one of the most important items in the programme. If every man were educated properly, he would recognise the truth of that old saying of (he thought), Marcus Aurelius "What is not good for the hive, is not good for a single bee." He would then see that what was good for himself in production must be good for the community, When a man saw that he must work for the good of the community, and not for himself alone, then would they get better production.

THE PRESIDENT, MR. E. J. SADGROVE, F.R.I.B.A., in submitting the vote of thanks to the meeting said it must be conceded that the papers given them by SIR AMBROSE POYNTER, and SIR CHARLES RUTHEN were so full of valuable matter that it was almost impossible unless one had had a previous opportunity of considering the points to pick out and properly discuss the essence of any of them. The architects who were good enough to prepare papers such as those they had just heard were fully conversant with all the points made, but their audience were at some disadvantage, and it might possibly be felt that the responses were perhaps a little weak, but it must be rememered that members were able to read the papers and the following discussion in the JOURNAL which would be very valuable in forming a constructive policy. MR. TUBBS' suggestion regarding the purchase of their own houses by the general public was a good one, and should be encouraged to the utmost. There would always, however, remain a fringe of humanity who did not want their own houses. He agreed with the suggestion that there should be more discrimination in education so that the working-class would not want to take up an occupation they were not fitted for. If the scheme suggested for the Government to advance or to guarantee to Building Societies some financial assistance were brought about, it would not be a gift but a very good investment. As most of the speakers had clearly pointed out, the real cause for the trouble was the restriction of output, and he did not think they would get any material alteration to that until the Unions instructed their members to go full speed ahead. There was always the man, however, who possessed a little more of the gift of the gab than his fellows, who talked to them in their own language, and who drew attention to any of his fellow workers, who might be doing a little more than his neighbours. Until the Unions told their men to go right ahead and let their men earn whatever they possibly could for themselves, he thought they would not make very much headway in regard to better output. There were two ways of looking at the question of sub-contractors, who were generally specialists, and if every builder had to engage a group of specialists in every trade, their overhead charges and costs were going to be enormous. A good builder who organised his business properly could carry out his work satisfactorily even if he had to employ sub-contractors. Those firms who put out the work mainly to sub-contractors were financiers only and not builders. With regard to the selection of a suitable firm for a particular class of building as mentioned by MR. PEARSON, although MAJOR FREYBERG had referred to the proportion of qualified builders to those so-called builders, who were merely decorators, he was quite certain that MAJOR FREYBERG would not make the mistake of going to a decorator for his structural work. On the other hand, there were many employers who did not engage an architectural adviser and on seeing a builders' name plate would probably engage him on the strength of that. He thought that all trades and professions should be restricted to the work for which they had been trained and fitted and entry to those trades and professions should be limited to those who had qualified.

The vote of thanks to SIR AMBROSE POYNTER and SIR CHARLES RUTHEN was then carried with acclamation, and after their brief acknowledgment the proceedings terminated.

Belgian Notes.

BY W. E. WOOLLEY, M.S.A. HON. CORRES. MEMB., LIÉGE ASSOCIATION OF ARCHITECTS, ETC.

The town council of Liége has voted a credit of five million francs for the construction of working-class dwellings, for the purchase of and fitting up, in a proper state, existing house property, and for the construction of temporary dwellings. They have also decided to create a letting agency.

An exhibition is to be held shortly at the Museum, Rue de l'Académie, Liége, of the premiated designs in the competition organised by the High Commissioner for the devastated regions of Liége, Namur and Luxemburg.

The Royal Commission of Monuments and Sites has requested the Ministre de l'Intérieur to submit complete projects for the "fitting up" of Louvain. They state this old capital of Brabant is of great archæological importance, and that the monuments there are very numerous and should be protected and cared for.

The "Chambre Syndicale" of Belgian Architects, founded by the late Henri Beyaert, March, 1878, has recently elected the following as its officers: President, M. Paul Gilson; Vice-Presidents, M. M. Léon David and Jean Maelschaelck; Secretary, M. Achille Michel; Assistant-Secretary, M. Paul Menessier; Treasurer, M. Robert Crignier; Librarian, M. Fernand Conard.

Proceedings of the Society.

An Ordinary Meeting of The Society of Architects was held at 28, Bedford Square, W.C.1., on Thursday, 11th March, at 8 p.m. The President, Mr. Edwin J. Sadgrove, having taken the chair, the Minutes of the previous Meeting as published in the Journal were taken as read, and were confirmed and signed.

The Secretary announced nineteen nominations for Membership, and the reinstatement by the Council to Membership, of A. W. Street, of Corsham and J. A. Wilson, of Glasgow. He also announced the admission by the Council to the Register of Students of F. W. F. Gooch, of Southport; A. Greig, of Croydon; and H. Metayers, of Jersey; and the extension of temporary Membership for a further period of twelve months to W. H. Boughton, of U.S.A.

The Resignations of W. G. Couldrey, of Paignton and E. B. Jory, of Cardiff, Members ; and of D. B. Corrie, of Erdington, Student, were announced.

The Ballot was then taken for the election of the following Candidates for Membership, and was declared to be unanimously in their favour :—

Aherne, De Lacy, 5, Waterloo Street, Birmingham. Anderson, James Clement, 120, Burnt Ash Hill, Lee, S.E.12. Bell-John, Harry, Public Works Department, Johannesburg. Bowie, John Simpson, P.O. Box 214, Springs, Transvaal. Donaldson, Frank Oliver, Boro, Architect, Guildhall, Grantham. Drover, William Henry, Inglenook, 36, Thornbury Avenue, Southampton. Evans, Charles Thomas Morris, Riversdale, Mountfields, Shrewsbury. Foden, Thomas Milnes, 199, Deansgate, Manchester. Fraser, Bright, 5, Vaughan Road, Wallasey. Glegg, Robert Henry, 40, Neville Street, Cardiff. Hector, John Black, 30, Cyprus Avenue, Church End, Finchley, N.3. Jury, Sydney Charles, " Laburnum," Turvey, Bedfordshire. Laing, Henry George Malcolm, 9, Old Square, W.C.2. Mather, Andrew, Craig's Court House, Charing Cross, S.W.1. McCubbin, David Aitken, P.O. Box 442 and Railway Headquarters Offices, Johannesburg. Porter, Harold Nixon, P.O. Box 2527 and 72, Sauer's Buildings, Johannesburg. Robinson, Graham John, 39, Catherine Street, Salisbury. Small, John William, 104, Hopkins Street, Bellevue East, Johannesburg. Strudwick, Francis John, 90, Taylor Road, Wallington. Swann, William, St. Peter's Chambers, Stockport. Todd, Harold Edgar, 17, Earls Court Square, S.W.5. Vaux, Fred, 2, Victoria Road, Bridlington. West, Archibald Buller, The Knowl, Abingdon.

The business of the Meeting was followed by a paper by Sir Ambrose Poynter, Bart., F.R.I.B.A. (Member), entitled " Thoughts on Economics in Relation to the Present Crisis." The discussion was opened by Sir Charles Ruthen, O.B.E., F.R.I.B.A. (Senior Vice-President), who dealt with the subject as it affected the building industry. The following gentlemen participated in the ensuing discussion : Messrs. W. H. Leverton (Architect, Ministry of Health), Percy B. Tubbs, F.R.I.B.A. (Past-President), H. Freyberg, F.S.I., J. Herbert Pearson and E. J. Partridge, F.S.I. (Members of the Council), C. McArthur Butler, F.C.I.S. (Secretary) and The President, Mr. Edwin J. Sadgrove, F.R.I.B.A.

Sir Ambrose Poynter and Sir Charles Ruthen replied to the points raised, and were accorded a hearty vote of thanks.

The Proceedings then terminated.

An Extraordinary General Meeting of The Society of Architects was held at 28, Bedford Square, W.C.1., on Thursday, March 25th, 1920, at 4 p.m., to consider, and if thought fit, to approve the proposed alterations to the Articles of Association.

The President, Mr. E. J. Sadgrove, having taken the Chair, the Secretary read his notice convening the meeting.

The President in opening the proceedings, pointed out that on the 1st of November last, all the Members then on the Register were circularised, inviting them to express personally at a meeting to be held on November 13th, or previously by letter their views on the Council's proposals to divide the membership into three classes and to raise the present membership subscription from £2 2s., to £3 3s. At that meeting, a Resolution was passed, as recorded in the Proceedings published in the Journal in December, approving of the proposals in principle and leaving it to the Council to settle all the details necessary to carry them into effect, on the understanding that the present membership status would remain for those who are not at the time eligible to transfer to a higher class or who for any reason preferred not to do so.

The papers which accompanied the notices calling the present meeting embodied the completed scheme and contained the machinery for carrying the proposals into effect and at the same time for amending other Articles connected with the administration of the Society's affairs apart from the membership, which experience had found to be desirable in the interests of the Society and its members.

As a matter of fact, the new membership regulations concerned new candidates very much more than they did the present Members and the main object of them was to provide a means whereby every bona fide architect might be brought within the membership of the Society in that class for which he was at the time eligible, and under such conditions as would enable those who were not sufficiently advanced at the time for the higher classes, presently to qualify for them and in the meantime, to be able to give the Society the benefit of their support and co-operation.

In regard to the small increase in the present membership fees, this was inevitable in the case of an active and progressive body such as the Society, which must have at its command sufficient funds for the carrying out of its work in a proper and efficient manner.

The subscriptions for the new classes were in proportion and it would be noted that Members transferring to a higher class did not pay any entrance fee.

It seemed from the number of applications already made for transfer to the Fellowship class, which could not be dealt with until the Articles were passed and confirmed, and from the overwhelming number of proxies received in favour of the proposals, that the Members generally desired the scheme to go through, and this view was further strengthened by the letters of congratulation, which had been received by the Society on its proposals. At the same time, the matter was now out of the Council's hands and it rested entirely with the meeting to say whether or not the scheme was to go forward, either in its present or if necessary in some amended form.

The Chairman then moved the following resolutions :

(1) To consider, and if thought fit, approve the draft new Regulations which will be submitted to the Meeting, and in the event of the approval thereof with or without modification ; (2) to consider and if thought fit, pass a Resolution to the effect that the new Regulations already approved by this Meeting, and for the purpose of identification subscribed by the Chairman thereof, be and the same are hereby approved, and that such Regulations be and they are hereby adopted as the Regulations of the Society to the exclusion of all the existing Regulations thereof.

The resolutions were seconded by Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., Senior Vice-President, and the Chairman declared the matter open to discussion. There being no questions raised, the Chairman put the resolutions to the meeting and declared them to be carried unanimously.

The Secretary stated that the Confirmatory Meeting, of which due notice would be given would be held at Olympia, on April 15th, following one of the meetings organised by the Society in connection with the Building Trades Exhibition.

The proceedings then terminated.

Registration in Australia.

We gather from the following extract from the *Daily Telegraph* (N.S.W.), of January 20th, 1920, that English History in matters of architectural politics is repeating itself in New South Wales, where there are two architectural bodies each advocating Registration on somewhat different lines to the other. We understand that the Minister in charge of the Bill put forward by the Institute of Architects, and also the leader of the Opposition have approved the measure as it stands and that the Association is endeavouring to convert members of both bodies to view the matter as they see it.

" We want registration." The newly-formed Architects' Association of New South Wales is shouting this as loudly as the Council of the Institute of Architects, at whose instance the Architects' (Registration) Bill was drafted. Both bodies continue to hope that the Bill will shortly be hauled off the shelf and passed into law. It will—if they make enough clamour for it.

" The feeling of the Architects' Association " (to quote from a manifesto prepared by its Council for discussion at the next meeting of members) " is that if any man is to be turned loose on the public without examination or proof of professional qualifications of any sort, then every man who, at the passsing of the Act, is solely dependent upon architecture for his daily bread should be eligible for registration. Further, if three years' articles to an architect entitled to be registered under the Act, or three years at Sydney Technical College are sufficient qualification, then three years' articles with any genuine technical or other college also qualify. Finally, it is thought that any articled pupil or other person who, at the time of the passing of the Act, is irrevocably committed to Architecture as a future means of livelihood, has a right to registration at such time as he completes the required period of pupilage or studentship.

" The establishment of the Chair of Architecture is likely to have another effect upon the present generation of architects in that the future will see a steady stream of graduates entering the profession. To some extent younger members, who have not had the opportunity to obtain a University raining, may find themselves handicapped. The Association is, therefore, considering the possibility of establishing tutorial classes, with a view to qualifying the members of the Associateship of the R.I.B.A., through the special Colonial examinations.

" The foundation of these classes will depend entirely on the amount of support likely to be obtained. On present appearances there will be ample support, and the qualification for the Associateship of the Architects' Association has, therefore, been fixed at a high standard. Associateship will be open only to University graduates, Associates of the R.I.B.A., and members of the profession, who can produce evidence of at least equal training and attainment. This standard is materially higher than any previously fixed in this State, the highest up to the present being the Associateship of the Institute of Architects, which is equivalent to the R.I.B.A. intermediate. The Association feels, however, that in the new order of things this will not prove high enough, and that the University graduate of the future will prefer to associate himself with a body which keeps the associate class at such a level that he will find himself amongst men of equal ability and skill. With this common ground, the University graduate and his less fortunate though probably not less skilled, colleague will be able in the future to build up the class of Fellows upon a foundation of genuine attainment and available only through the Associate class."

The difference between the Association and the Institute is as to what should qualify for registration under the proposed Act.

Russian Working-Class Dwellings.

By T. W. Clark (Member), Late 45th r.f., r.e.f.

Stretching from Moscow and Vologda to the White Sea, is a vast tract of country practically unknown to the British people; without railways and having few roads, its very inaccesibility is not calculated to tempt the average British visitor to make a tour. Nevertheless it is well worth it.

In parts densely populated the customs and habits of the peasants make an absorbing study.

Isolated houses are few. For mutual protection, the inhabitants live in townships or "Societies." The houses well spaced, are always of wood, very substantial, roomy and generally with gable facade to the main street, or road. The village streets are fairly wide, about 50 to 100 feet broad, and in front of the churches even wider.

The churches are remarkable features of the sea-green landscape. Painted white, the commanding towers and detached belfrys (octagonal in plan), surmounted by apple green spires of fluted wood "slates," crowned with glittering gilt cupolas topped with the Russian Cross, strike a distinctive colour note against the blue sky. The boundary walls of the churches are generally of russet bricks—a precious commodity—and wood rails. Usually, there is an entrance archway—sometimes wood and sometimes of brick, but in nearly all cases, a Holy Icon is an inset in the apex taking the form of a coloured relief of the Virgin Mary under a sheet of heavy glass in an enamelled brick frame. The church windows are unusually small and divided up by small astragals into tiny square panes.

The sketch of the church at Yako is interesting from an historical as well as an architectural standpoint, as that is the only record in black and white of the graves containing the bodies of seven soldiers of "C" Company, 45th Royal Fusiliers, R.E.F., killed on October 8th, 1919 by the Bolsheviks, viz., Major Shepherd, M.C., Capt. Mattos, Sergt.-Major Garnham and Privates Cree, Martin, Haye and Potter.

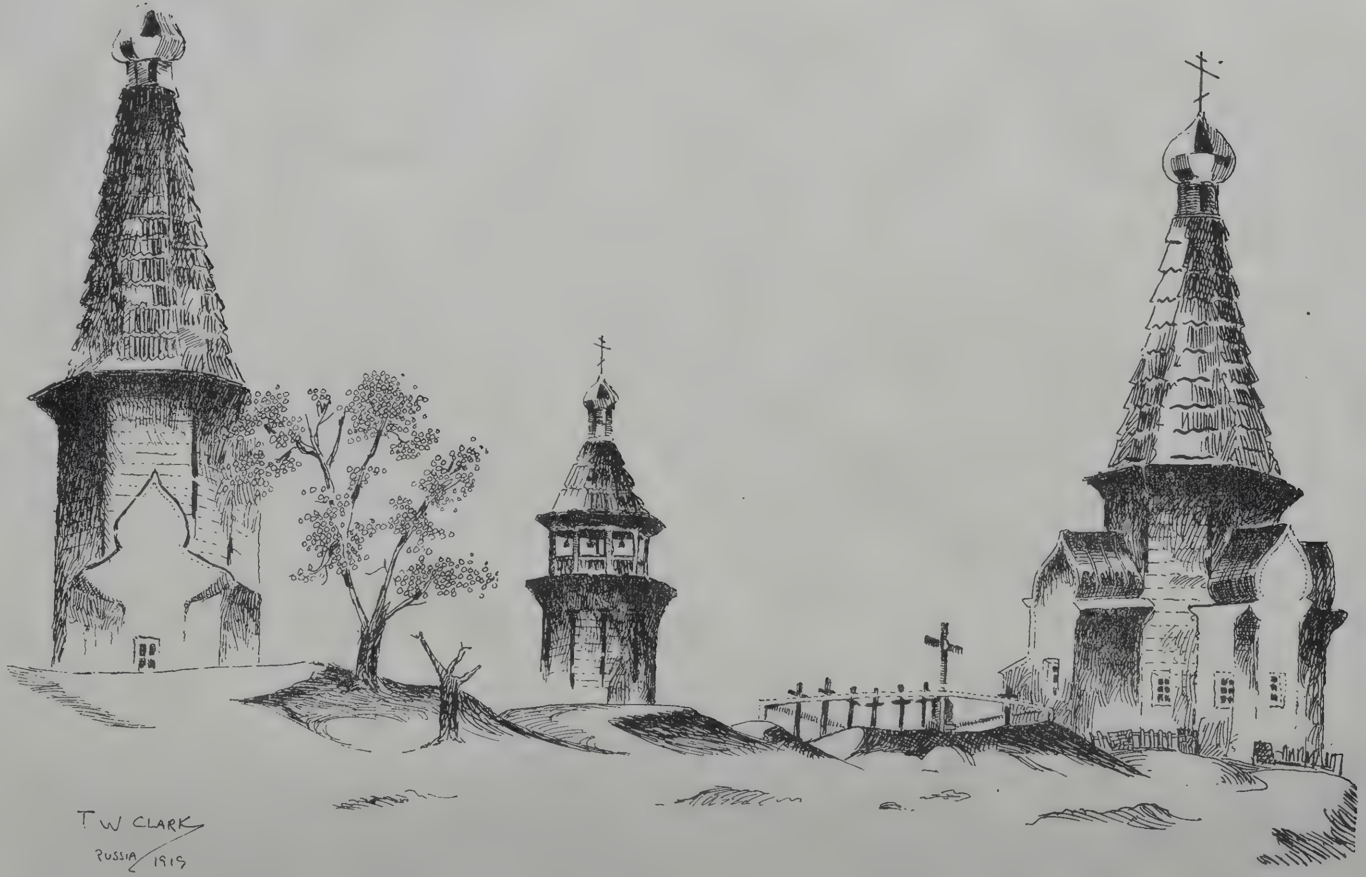
In these villages, it is very rarely indeed one comes across a single-storey dwelling house. The usual type is two storeys with attic. The front portion is reserved (top floor and ground floor), for the household and the rear for live stock and loft. A somewhat peculiar feature is the inclined gangway from the front of the dwelling houses to the rear of the top storey. This is about 5 or 6 feet broad, and it is quite a common sight to see little Russian ponies pull their loaded droskis up these steep inclines to the loft.

The houses are all alike, but differ in finish and details. The better class peasants have the facades lined and coloured—generally yellow or white, with pilasters oftimes peculiarly panelled, and decorated with extraordinary colour schemes of a diamond shape nature. A peculiarly ferocious lion rampant with collar and chain quite commonly figures on the gables. Sometimes the date of building is added, but this is unusual.

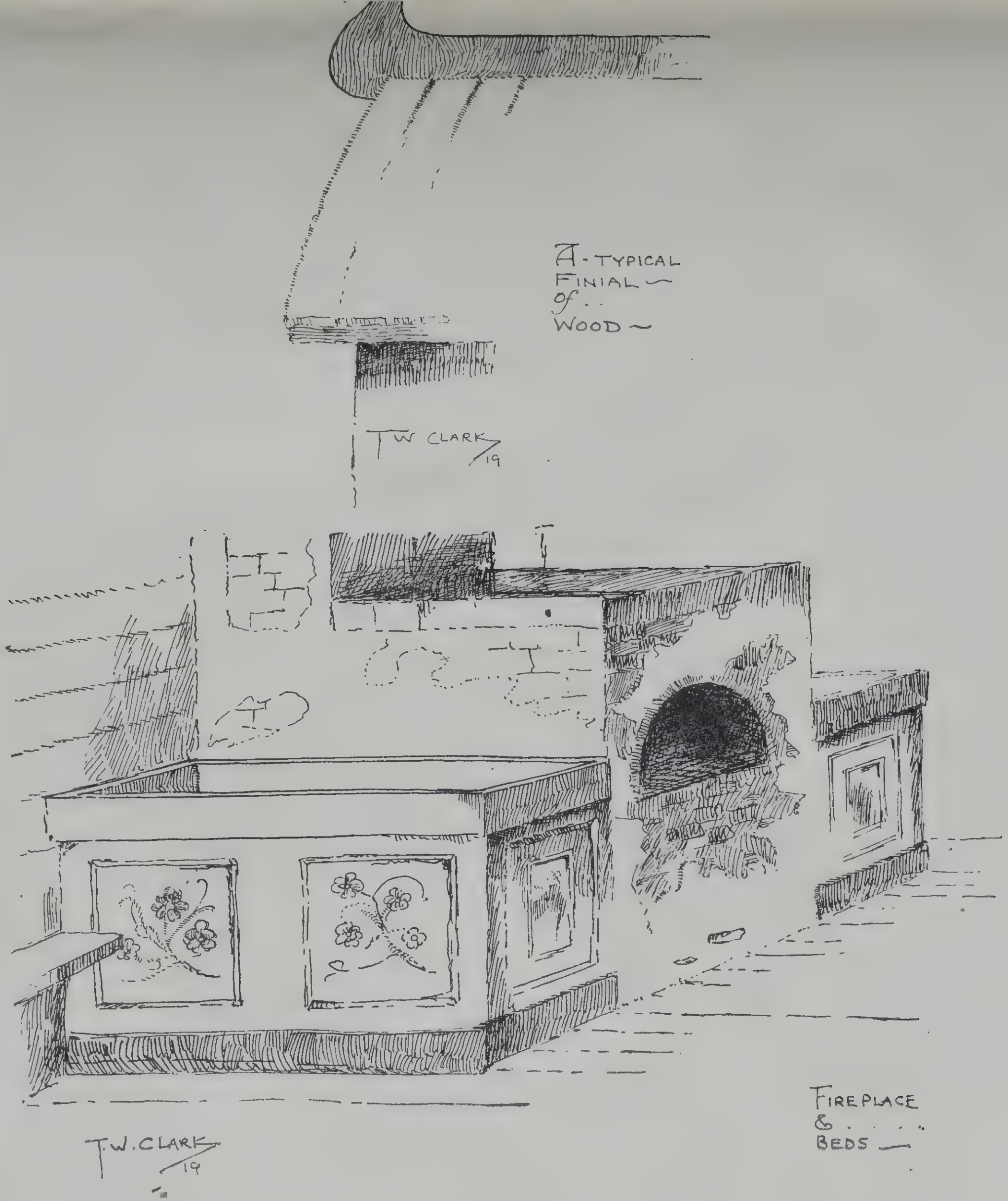
The roofs have very much the same pitch as our own but the eaves project about 2ft 6ins. beyond the wallheads. Internally, the rooms are considerably more com-

(*In the story of the Russian Relief Forces as told by G. S. Gates, 46th R.F., R.R.F., in the March issue of "Blackwoods Magazine," the following reference occurs :*

"A direct hit by a shell on column headquarters killed the column commander (Major Shepherd) and eight other ranks . . . . Men of "A" Company of the 45th R.F. were fortunate in finding the bold commander of the Garrison in his headquarters, and in revenge for the death of the popular Shepherd, the wretched Bolo and his staff were promptly despatched.—Ed.)



THE CHURCH AT YAKO.


A-TYPICAL FINIAL ~ of.. WOOD ~
T.W. CLARK 19
FIREPLACE & . . . . BEDS —
T.W. CLARK 19

RUSSIAN WORKING CLASS DWELLINGS.

modious than the British, French or American working-class homes. Twenty-five feet by fifteen is a common size. The apartments open off a central lobby by doorways, which are only some 5 feet clear in height for in all cases, the sill of the partition runs across the doorway, a rather objectionable feature in a country where " six-footers " are in the majority!

The rooms have enormous brick fireplaces projecting about 6ft. 6ins. from the walls, reminiscent of furnaces. These fireplaces are flanked by panelled bed positions about 3 feet from the floor. The space under is utilised for wood, fuel, etc. Decoratve motifs such as flowers, animals, etc., frequently adorn the cupboard doors.

The Russians believe in having plenty of windows—fixed and casements—to their rooms. The casements opening outwards are very like our own in general detail.

Wallpaper is practically unknown. In one or two cases only were the rooms papered. In nearly every instance, the walls are left untouched exposing the moss packing. The corners of the apartments are usually rounded off.

Ceilings are plastered and plain cornices are common. Fixed seats about 12 ins. broad run round each room, and at some 5 feet from the floor, broad shelving on strong brackets encircles the apartments.

No pictures grace the walls and such furnishings as carpets, linoleum, etc., in contrast to peasant France for instance, are conspicuous by their absence. The French peasant sands her ruddy tiles or brick floor daily ; the Russian housewife merely throws a bucket of water over her wooden boards.

Apart from a table or two, the Russian peasant possesses few articles of furniture. Some are the proud owners of chairs, and a Singer Sewing Machine has now and again been encountered, but these are luxuries. Clocks are a rarity, but curious to relate, watches are pretty numerous.

Water is drawn from timber lined wells of great depth by windlass and wood bucket and on the hottest day (in summer the heat is extreme) it is icy cold. The villages have plenty of wells and the water is of fair quality and free from contamination.

Sanitation is primitive and about on a par with some districts in France.

Every house has a bath-house erected at the foot of a " Katoska " patch, built of logs and containing two apartments. Every Saturday, bathing takes place *en famille,* in a temperature which can be mildly described as unpleasantly high, a huge fire being kindled in the furnace three or four hours beforehand.

Architects and the Housing Delays.

Statements have been frequently made in public that Architects are largely responsible for delay which has occurred in getting houses built in connection with State-aided Housing Schemes. The Society of Architects is therefore collecting evidence in order to demonstrate to the Ministry of Health that this is not the case ; and further to show that in certain instances, Architects are inadequately paid under the Scale of Charges laid down in Housing Memorandum No. 4.

Members engaged in carrying out State-aided Housing Schemes are invited to communicate with the Secretary of the Society, giving such information as will assist in presenting an incontrovertible case to the Ministry of Health on both these points.

Correspondence.

To the Editor,
The Society of Architects' Journal,

Sir, **Sir Frank Baines on the Arts and Crafts.**

Some very outspoken and fearless remarks were made by Sir Frank Baines, when he recently addressed the manufacturers at the Ideal Homes Exhibition. He implied " that the Arts and Crafts movement was relatively of little influence in improving the standard of industrial design, since it dealt principally with handicrafts, and had left the British manufacturer unaffected ; its whole tendency was to disregard the necessity of materially influencing the bulk production of commodities by the utilisation of machinery."

Some years ago, I joined this movement, thinking I could lift my advertising and literature to a higher plane. I spent an afternoon attending one of their meetings in which fluent speakers made witty remarks, so that I, together with an artist friend who had accompanied me, had a very happy hour. I perused the literature which was sent to me, but could not digest it because it was so extraordinarily dry. There was never a single hint of any value given to the manufacturer ; everything was abstract—nothing was concrete.

If an artist with as much energy as Sir Frank Baines, would devote himself to educating manufacturers, I think something would be achieved, but it would not be very remunerative employment financially !

Are we not progressing as quickly as one can expect for a northern nation such as ours, where we are so devoid of sunshine and colour during the dreary winter months ? We have also a long way to go before we can catch up with France—quite apart from the climate—and we are apt to forget that we had hardly a scrap of architecture, " from which springs all art," until William the Conqueror brought his builders over to build his churches. We had, up to that time, only a few plain Saxon buildings. When we visit those marvellous later works of art in France, such as the church of Brou, near Macon, which are just as intact as on the day when they were erected, and then think about the time when artistic progress was stopped in England by civil wars, the Puritans, etc., it makes one more satisfied when we see what London and many of our big cities can show in architectural buildings, and in the artistic displays which fill many of our shops.

And now I come to the reason I am addressing the Editor of an Architectural paper. The architect, more than any professional man, is responsible for educating the taste of the public in arts and crafts, for by his work, the mind and the eye of the citizen is unconsciously trained. Good architecture teaches him something of the rules of proportion, and shows him the beauties of form and colour. Would not a great appreciation of Art and Craftsmanship accrue to the community if the best buildings were regularly illustrated and described in our daily newspapers and monthly magazines, by architects, who have the gift of lucid explanation ? What does the average householder know about proportion, style and dignity in architecture ? Would he admire the gaudy, gilded hotels, restaurants and music halls, if he were trained even a little ? It may be a matter ultimately for the Minister of Education, but he has more than he will get through for some years. In the meantime, the Architectural Societies might co-operate with Editors and proprietors of suitable media with a view to placing England in a few hundred years, where Greece was two thousand years ago ! Why not ?

J. H. KERNER-GREENWOOD.

March 11th, 1920.

Economics.

Sir,

I was greatly interested in Sir Ambrose Poynter's paper and the discussion arising thereon.

It occurs to me that it would be a great improvement if such subjects as Political Economy or Economics, which include the relationship of the citizen to the State, the position of capital and labour, duties of citizenship, etc., were introduced more in the curriculum of the Elementary Schools. One must remember that some at least of what is taught at school "sticks" to one in after life. Educate the child on the right lines, and you have done something towards educating the adult on the right lines. By this method, the public would be educated to understand and appreciate the various National and International Problems—educated on National lines if you like—to the advantage of the Nation, the Government and the Individual. A country adopting such methods is going to advance and is going to defeat all extremist measures. It should lead to better relationship between capital and labour.

There is no doubt that *one* of the contributory causes of the present discontent is owing to overcrowding and lack of proper housing accommodation. Give the worker a proper house to live in, and an allotment garden if he so desires, and you have done something towards solving the problem.

W. E. WOOLLEY, M.S.A.

March 18*th*, 1920.

Registration.

Sir,

There has been a certain amount of discussion lately in *The Builder* re the Architects' License Law (America), and it may be interesting to know that in at least 18 States, laws have been passed licensing or registering *architects*. These States are California, Colorado, Florida, Illinois, Idaho, Louisiana, Michigan, Montana, New Jersey, New York, North Carolina, North Dakota, Oregon, Pennsylvania, Utah, South Carolina, Washington and Wisconsin.

In addition, 9 States have laws licensing or registering *engineers*, and in at least 6 States, *land surveyors* are required to be licensed or registered.

From the foregoing it is apparent that Registration of Architects has been considered in America, to be of more importance than Registration of Engineers.

The laws in operation however, are not uniform, but there is a movement afoot to obtain uniformity.

W. E. WOOLLEY, M.S.A.

March 20*th*, 1920.

Competitions Barred.

Members are requested not to take any part in any of the following Competitions without first ascertaining from the Society that the conditions have been approved by the Council:

HORNSEY, LOCKERBIE, BATLEY, CHICHESTER AND CLEETHORPES.

To the Editor of the S.A. Journal.

Reparation for War Damage.

Sir,

At last there is evidence that the Government are dealing with this matter in earnest and from to-day, Forms can be obtained on application to Mr. W. Neill, Controller, Reparation Claim Department, Board of Trade, Cornwall House, Stamford Street, London, S.E.1. It is very satisfactory that the facts are now to be collected and that the Department ask for them to be "forwarded as soon as possible."

The Forms are (1) Damage due to loss of life of British Civilians ; (2) Damage to British Civilians due to Personal Injury ; (3) Damage to British Civilians by loss of, or injury to property ; (4) Damage caused to British Civilians by being forced to labour without just remuneration.

Claims which have been sent in to the Foreign Claims Office have been transferred to the new Department and no further action in these cases is asked for at present. It might, however, be advisable for claimants to obtain the Forms and consider whether their original claims call for amendment.

Particulars should be furnished of all injuries, which have been compensated in whole or in part from private or public charitable funds as in the end all such funds should be reimbursed.

MARK H. JUDGE, Chairman,
Committee on War Damage.

7, Pall Mall, S.W.1.
27th March, 1920.

Addresses Wanted.

The Society's Journals sent to the following Members, etc., have been returned through the post marked "Gone away." The Secretary will be glad to hear from anyone who can put him in communication with any of these Members ;

MEMBERS.

C. A. Aish (London), H. C. Anderson (Heywood), J. Bevir (Lymington), G. A. Birkenhead (Vancouver), D. J. Campkin (London), F. Clemes (Grimsby), P. Rogers Cooke (Germiston, South Africa), E. N. Cubitt (Brentwood), A. H. Davies (Newport, Mon.), G. W. Davies (Grimsby), J. L. Donnelly (Dublin), S. A. Hall (London), J. M. Hatfield (Barnes), F. W. Higginbotham (Dublin), G. A. Hill (Eastbourne), T. J. Holland (London), R. R. W. Hide (Worthing), G. W. Jack (London), H. Jackson (London), David J. Jones (Ealing), H. F. Keighley (Blackpool), A. E. King (Mansfield), W. E. Knapman (Exmouth), W. Leicester (Manchester), R. T. MacArthur (Birmingham), Cecil T. Mitchell (Johannesburg), F. Mountain (Oxford), John Myers (B.E. Africa), A. C. Payne (London), R. T. Perry (Vancouver), Ernest Rose (Rhodesia), C. D. Rutter (Wrexham), J. B. Sanders (Crawley), S. N. Shrimpton (Cardiff), J. A. Souttar (London), J. J. Taylor (Darlington), T. G. Williams (Liverpool).

STUDENTS.

A. C. Bedington (Newquay), Leonard Cavanagh (London), P. T. Keeble (Aylesbury), Arthur Oates (South Shields), W. G. Parkin (Hampstead), C. H. Roberts (London), J. R. Thomas (Colchester), S. E. Urwin (Birmingham), R. C. Vander Schyff (Pretoria).

Abolishing Charing Cross.

London is quite as vigorous to-day as at the conclusion of that other exhausting war of over a hundred years ago. An indication of this virility is the demand, which is daily growing more insistent, for the improvement of Central London, and the building of a new bridge across the Thames from Lambeth to the Strand, involving the removal of Charing Cross railway station to the southern side of the river.

Into this controversy, Mr. G. A. T. Middleton, after a lapse of more than nine years, has again thrown himself with an energy and courage that would have been remarkable in even a much younger man. Stated briefly, Mr. Middleton's proposal is to build a great terminus for the S.E. & C. and L.B. & S.C. railway lines in the Blackfriars Road, and to demolish the five existing stations of Charing Cross, St. Paul's, Blackfriars, Holborn and Cannon Street. It is suggested that the existing railway route from Cannon Street to Charing Cross could then be converted into a high level road for foot and vehicular traffic, thus doing away with the need for the new bridge to the Strand, around which proposition so much controversy is at present raging.

TRANSFIGURATION OF BRIDGES.

As a part of the scheme, it is suggested that Charing Cross railway bridge could be made more pleasing architecturally by encasing the existing structure in stone; and it is proposed that shops be built both on this and on Cannon Street Bridge.

This ambitious scheme includes extensive slope approaches and the demolition of existing slum property, which would free a considerable space for the erection of new shops and dwelling houses. But there are both æsthetic and utilitarian objections to it. In the first place, the suggested return to the mediæval practice of erecting buildings on the bridges seems to be a part of that growing conspiracy for shutting out light and air from London thoroughfares, and, as such, must be condemned. The main objection to Charing Cross Bridge, as it at present exists, is not so much against the bridge itself, as against the lattice girders which shut out the view both up and down the river. To perpetuate this obstruction by the erection of permanent buildings on the bridge would be an unpardonable architectural blunder.

THE FUNCTION OF RAILWAYS.

On the utilitarian side, the proposal to erect one great terminus on the south of the river has much to recommend it—but is it not a little premature? The custom of working in London and living outside the metropolis has wisely been adopted by a vast section of the population. It is for the convenience of these people, who wish to get to and from their place of business as quickly as possible, that the railways have been built. To deprive this body of people of the facilities they already have, without giving something as good or better in return, would not be a satisfactory arrangement. With all their faults, Charing Cross and Cannon Street Stations are admittedly two of the most central railway termini in London; and to dump the daily passengers to those stations a mile or two from their destinations would be a retrograde step.

The solution of the passenger difficulty lies in an extension of the tube system. It has already been suggested that the tube railways (by which the south is at present very badly served), might be extended to a radius of twelve miles or so round London for goods traffic, and, if this were first undertaken for the conveyance of passengers, then Mr. Middleton's scheme might be commendable and worthy of adoption. But whatever is done, let us keep the level of our bridges as low as possible, and free from superstructures, whether of shops or view-obstructing covered ways.—*The British Builder.*

Notes from the Minutes.

HOUSING. At a Meeting of the Council held on March 11th, it was reported that replies to the Council's resolution urging that in public appointments, other things being equal, preference should be given to ex-Service architects, had been received from the Ministry of Health and from the Association of Municipal Corporations. Dr. Addison was in entire agreement with the Society's views and the Association intended to embody the Resolution in their report, copies of which would be sent to all the Municipal Corporations in England and Wales represented on the Association. The President, Mr. E. J. Sadgrove, had interviewed the Director-General of National Housing, Sir James Carmichael, with reference to the claims of Members of the Society to consideration in connection with Housing appointments.

At the invitation of the Ministry of Health, the Society had sent delegates, viz :—the President, Mr. Sadgrove ; the Senior Vice-President, Sir Charles Ruthen and the Secretary, Mr. C. McArthur Butler, to a Conference on March 2nd, at which the R.I.B.A. was also represented, to discuss certain questions raised on the agreed Scale of Architects' Charges and as to statements made that in some cases there had been excessive delays in the preparation of plans. After a long discussion, the Conference was adjourned for further consideration of certain conclusions tentatively arrived at.

WAR MEMORIAL TABLET. A Tablet to commemorate services of Members of the Society and the names of those who fell during the War is to be placed in the Society's Meeting Room. Mr. G. H. Wenyon, Member of Council, is preparing a design for the Tablet.

PROFESSIONAL CLASSES WAR RELIEF COUNCIL. The Society was represented by invitation at a Conference convened by this Body at the Surveyors' Institution, on February 18th, when the subject of its future activities and peace footing was discussed. The Council will presently deal with the report of the proceedings.

BUILDING TRADES EXHIBITION, OLYMPIA, APRIL 10TH-24TH. It was reported that as a result of negotiations with Mr. Greville Montgomery, the Directors of the Exhibition, had placed the " Princes' Rooms," on the ground floor, and a Conference Hall, at the Society's disposal for the whole period of the Exhibition ; and would issue complimentary season tickets to Members and their friends. The thanks of the Council were conveyed to the Directors for their generosity, and a preliminary programme was approved for publication of which particulars appear in another part of this issue.

DECORATION OF THE PREMISES. The re-decoration of the exterior of the Society's premises is in hand, and will be followed by the renovation of the interior as soon as possible.

ATELIER. From information received from Paris, it appeared likely the Sous-Patron, M. J. P. Chaures, would soon be able to resume his duties with the Atelier. The chief obstacle was that M. Chaures, as a consequence of severe wounds receive during the War, had so far felt unequal to the strain of carrying on this work in addition to his other engagements, but it was now hoped that arrangements could be made whereby M. Chaures' whole time might be devoted to the Atelier.

The new Atelier premises at 28, Bedford Square, had been completed, and it was hoped that it would be possible to admit the waiting candidates at an early date.

HONORARY AUDITOR. It was stated that Mr. William Hoe had accepted the Council's invitation to act as Honorary Auditor for the current year.

Ministry of Labour.—Grants. Correspondence with the Ministry of Labour showed that in respect of certain professions, a regulation had recently been made to the effect that grants would not be awarded, save in very exceptional circumstances to men who had not embarked upon professional training before August 26th, 1919, or, who had not a definite prospect of employment on the completion of training, or, who had begun training at their own risk and had applied to the Department, but had not yet been recommended for a grant by the Interviewing Board.

This regulation, the Ministry anticipated, would ensure that grants would not be awarded in such numbers as to overcrowd the professions concerned, and if the Council of the Society was of opinion that it would be judicious to apply this regulation to the Architectural profession, the necessary recommendation would be made to the Grants Committee. The Council decided to recommend that these regulations should apply to the Architectural profession.

Ministry of Labour.—Selection Committees. It was reported that Mr. Braithwaite, the Society's representative on the Leeds Selection Committee of the Ministry of Labour, has been compelled, owing to pressure of other work, to relinquish this appointment, and at the request of the Ministry, the Council has agreed to nominate a successor.

National Housing and Town Planning Council. On the invitation of this Body, the Council has agreed to appoint Members to serve on the Regional Committees which are being established throughout the Kingdom, and has given a donation of Ten Guineas to the funds of that Council.

Registration of Engineers. It was reported that the Institution of Civil Engineers were making modifications to their draft Registration Bill, and that when completed, it would be again submitted to the Society for their information and observations.

Lantern Slides Catalogue. It was stated that the work of cataloguing the Society's Lantern Slides had been completed by Mr. G. A. T. Middleton, to whom the thanks of the Council were conveyed. This catalogue will be available in due course.

Arbitration Rules. It was reported that the Rules of the Society's Arbitration Committee, under Clause 41 of the Form of Building Contract had been approved by the Society's legal advisers.

Victory Scholarship. On a recommendation of the Examination and Finance Committees, the Council has increased the value of the prize to be offered this year, from £50 to £100, and raised the maximum age limit to thirty-five years.

Examinations. The report of the Examination Committee showed that the details of the forthcoming Membership and Victory Scholarship Examinations had been settled.

Victory Scholarship Fund.

There is still a large amount to be raised in order to provide a sufficient sum for investment for the purposes of the Scholarship, which is to provide a prize of £100 annually to be competed for under the conditions laid down elsewhere in this issue. It is hoped that through the generosity of Members the deficiency will be made good. Donations should be sent to the Secretary of the Society of Architects, 28, Bedford Square, W.C.1.

The Society of Architects Victory Scholarship Competition.

"The Victory Scholarship" of the value of £100 and carrying with it the Gold Medal of the Society, is open for competition to any persons not exceeding 35 years of age, who are British subjects.

Regulations for Competitors.

1. The Jury of the Beaux Arts Committee, Messrs. Arthur Davis, F.R.I.B.A., Robert Atkinson, F.R.I.B.A., and A. E. Richardson, F.R.I.B.A., will be the Assessors, and their decision will be final.

2. The Competition is open to all British subjects, male and female, under the age of 35, and will consist of designs in architectural composition.

3. The Competition is divided into two parts as follows :—

(*a*) The first competition consisting of a twelve hour sketch competition conducted *en loge* * in London under supervision at a place designated by the Jury, who will also set the subject. Each sketch will be officially stamped by a representative of the Jury, and the sketches will be exhibited and assessed by the Jury, who will designate a maximum of ten competitors eligible to enter for the Second Competition.

(*b*) The second competition lasting four weeks and consisting of a design based upon a second twelve hour sketch executed under similar conditions and regulations.

The selected competitors will make and preserve a copy of their 12 hour sketch which will form the basis on which the final design must be carried out. The time allowed for completion is one month. Such competitors, after having produced their 12 hour sketch may receive the advice and criticism of their masters and fellow students, but any serious deviation from their original twelve hour composition, or any insufficient rendering will disqualify the competitor.

4. The finished designs will be exhibited and assessed by the Jury, who will award the prize to the author of the design they consider the best subject to the standard being sufficiently high to merit the award. If, in the opinion of the Jury, none of the designs reach the required standard of excellence, the award may be withheld for that year, and, in this case, the money may, at the discretion of the Council of the Society, be added to the General Fund with the idea of subsequently increasing the value of the prize.

If, in the opinion of the Jury, two designs are of equal merit, the prize may be divided, and the Medal duplicated.

5. At the end of the second and final competition each Competitor's original stamped sketch will be pinned on to his finished design, and if, in the opinion of the Jury, the main conception of the sketch has not been adhered to, the Competitor will be disqualified.

6. The Programmes will be handed to the Candidates in sealed envelopes, on the days appointed for the Sketch Competitions and the subjects will not be disclosed before those dates.

7. Both of the twelve-hour sketches must be executed *en loge* in London, but the final design may be developed at any place convenient to each selected Competitor.

**The term "en loge" signifies that the competitors will be isolated and must produce their sketches from the given programme without reference to books or documents and without consultation. Any competitor infringing this rule will be disqualified.*

8. The prize will be £100 and the winner will be at liberty to spend the money in any way he may choose, provided he satisfies the Jury that it is devoted to the furthering of his education.

9. Entries close on April 10th, 1920. The first *en loge* competition will be held on May 1st, from 10 a.m., to 10 p.m., and the second *en loge* and final competition a month later.

10. Candidates will be notified of the dates, times and places of sitting. They must bring with them a drawing board (Imperial), tee square and instruments, and also rations for twelve hours as they will not be allowed to leave the building during the Competition.

11. The Council of The Society of Architects reserves the right to vary these conditions from time to time.

12. All communications must be addressed to the Secretary of The Society of Architects, 28, Bedford Square, W.C.1., where entry forms may be obtained.

Royal Academy of Arts.

We are informed that for this year's Exhibition, and till further notice, Frames other than Gilt Frames will be admissible, but Frames of extravagant design or colour, or of unusual material, should be avoided as likely to cause difficulty in arrangement.

The S.A. and the R.I.B.A.

As to the special work which lies in front of the profession and the Institute, we hold the first to be the union and amalgamation of the Society and the Institute, and, when that union is effected, the prosecution of active work for the protection and better recognition of architects. The Society has carried out much work in legal and other directions, which has been useful to its members, and might well be combined on a greater scale after the union of the two bodies, and we believe, by accepting an outside examination in lieu of its own, the Institute would be promoting the course of unity, for such an examination would indicate a standard, which no practising architect could safely disregard in his own interest, and, as we have stated, the fact that such an examination rendered men eligible for the membership of the R.I.B.A. would make them disinclined to join bodies with a smaller status. It would render them " free of the profession," and the first use they would make of their freedom would in most cases be to join the Institute.—*The Architect*.

Scale of Professional Charges.

A copy of the scale of professional charges first issued in 1872, by the R.I.B.A., revised in 1898 and 1919 by the R.I.B.A. and adopted by The Society of Architects, 1919, has been printed by the Society with the permission of the R.I.B.A., as a separate document bearing the imprint of the Society's seal and the Society's address, and a copy has been sent to every member of the Society. Further copies may be obtained price sixpence each from the Secretary of the Society, at 28 Bedford Square, London, W.C.1.

Publicity.

THOUGHTS ON ECONOMICS. Notices and reports of Sir Ambrose Poynter's paper, and Sir Charles Ruthen's notes thereon appeared in the *Times, Morning Post Daily News, Daily Mail, Daily Express, Daily Telegraph, Evening Standard, Birmingham Gazette, Western Evening Herald, Yorkshire Telegraph and Star, Bournemouth Echo, Greenock Telegraph, Yorkshire Herald, Newcastle Chronicle, South Wales Daily Argus, Western Daily Press, Bristol Evening News, The Scotsman* many other newspapers and in the professional journals.

SKYSCRAPERS. Lord Montagu's proposal for a joint solution of the Housing problem and that of a central aerodrome for London by building skyscraper dwellings to act as supporting piers for roof aerodromes of glass, was adversely criticised by the Assistant Secretary (late a Captain in the R.F.C. and R.A.F.), in the *Aeroplane, Architect, Architect's Journal, Builder, British Builder* and the Society's *Journal.*

LONDON OF THE FUTURE. An account of a long interview with the Secretary of the Society on the question of the rebuilding and beautifying of the Regent Street Quadrant appeared in the *Evening Standard,* of 4th March, when reference was made to the good effect which the Beaux Arts system of architectural training, introduced into this country some years ago by the Society, will have on the architecture of the future.

HOUSING SITUATION IN ENGLAND AND U.S.A. A pamphlet by F. T. Miller (President of the F. W. Dodge Co., of America), contains a reference to Sir Charles Ruthen's paper read before the Society in October, 1919, and to the Society's action in protesting against the proposed restrictions on "Luxury" building.

ASSISTANTS' PROFESSIONAL UNION. Reference is made in the professional journals to the presence of the Secretary of the Society at the anniversary meeting of the A.P.U., at Caxton Hall, on March 5th, and he is credited with having made "a delightful little speech" in proposing a vote of thanks to the Hon. Secretary of that Association.

COUNCIL MEETING. *The Builder,* of March 12th, notes with satisfaction that the R.I.B.A. has decided to publish extracts from the Council minutes in its journal, and publishes the notes of the Society's Council minutes from the February journal. These have been a feature of this publication for the past fifteen months.

PROFESSIONAL POLICIES. Under various headings, the Secretary is dealing in *The Builder* with points raised by Mr. H. B. Newbold, the self-elected champion of oppressed architects, and the advocate of reforms on lines which the Society originated many years ago and still maintains.

ABOLISHING CHARING CROSS. The greater part of the editorial notes in the *British Builder,* for March, is concerned with a reference to and criticism of Mr. Middleton's proposals for a great London improvement.

BUILDING EXHIBITION, OLYMPIA. The programme of the Society's arrangements at Olympia, for the convenience of its Members and other architects, made possible by the courtesy of the Directors, was published and favourably commented on by the professional journals and appeared in other papers.

PROCEEDINGS OF THE SOCIETY. Reports of the proceedings of the Society appeared in some of the professional journals.

ARCHITECTS AND THE HOUSING DELAY. A paragraph asking architects to communicate to the Society evidence which would refute statements made in public that architects were responsible for the housing delay appeared in the *Times, Daily Telegraph, Morning Post, Westminster Gazette, Sheffield Daily Telegraph,* and in the professional journals.

COMPETITIONS. Notes on the action taken by the Society in respect of various Competitions have appeared from time to time in the professional journals.

The Society of Architects' Lodge of Freemasons.

At the meeting on March 10th, Mr. C. V. Bisley was elected as a candidate for initiation and Messrs. E. J. W. Hider, G. W. Pridmore and A. J. Taylor were elected joining members. Mr. D. R. Lyne and Mr. R. W. Russell-Walker were initiated, and other Masonic business transacted. It was reported that the W.M., Major T. Stewart Inglis, D.S.O., was not yet able to resume his duties, which he had been obliged temporarily to delegate to others owing to ill-health. Two members were proposed as candidates for initiation and two propositions were made for candidates as joining members. The next meeting will be held at the Holborn Restaurant, on Wednesday, May 12th, at 5 p.m. Visiting "members" from other Lodges will be heartily welcomed and are invited to communicate with the Secretary of the Lodge, Mr. C. McArthur Butler, 28, Bedford Square, W.C.1.

The International Building Trades Exhibition, Olympia, April 10th—24th, 1920.

By the courtesy of Mr. H. Greville Montgomery and the other Directors, the following facilities are granted to Members of The Society of Architects visiting the Exhibition on any or each day.

ARCHITECTS' CLUB. The Prince's Rooms on the ground floor will be available for the whole period of the Exhibition for the use of Members and their friends. any other Architects visiting the Exhibition are invited to accept honorary membership of the Club. The President and Members of the Council will be present from time to time to meet the Members of the Society and their friends, and the permanent Officials of the Society will be in attendance every day to give information regarding the Society and its aims.

SEASON TICKETS. Complimentary Season Tickets are available for Members and may be obtained from the Society.

SOCIAL FUNCTIONS. A Luncheon will be held on Thursday, April 22nd, in the Pillar Hall, at 12.30 p.m., for 1 o'clock. Tickets are obtainable at the Offices of the Society, and will also be on sale during the Exhibition at the "Architects' Club," price 12s. 6d. each (not including wines). Representatives of Government Departments, Professional Institutions and other public bodies will be the guests of the Society. The Luncheon is open to Members and their friends, including ladies, and also to other architects and members of allied professions and of the building industry.

CONFERENCES. The smaller Conference Hall on the Balcony floor will be available for the discussion of matters of general and professional interest, and the further elucidation of the problems connected with the building industry, in which architects, builders and the public are equally interested.

TRAVELLING AND HOTEL ARRANGEMENTS. Members who propose to attend the Exhibition will make their own arrangements for travelling and hotel accommodation. The Royal Palace Hotel, De Vere Gardens Hotel, Clarendon Hotel, or Kensington Palace Hotel are all equally accessible to Olympia.

All communications from Members on the subject should be addressed to the Secretary of The Society of Architects, 28, Bedford Square, London, W.C.1. Telephone: Museum 942. Telegrams: "Crypt Westcent London."

For the Information of Members.

The Library. Gifts of books on Architecture and allied subjects, and Donations to the Library Fund are invited. Books from the technical circulating library are sent through the post, or may be obtained on loan personally by Members on application. The Rules relating to the use of the Library are published in the Year Book, and a copy of the Catalogue may be obtained (free of charge) from the Secretary.

NOTE. The Library is closed for the time being, pending the completion of alterations and decorations to the premises. Notice of re-opening will be given in these columns in due course.

Book Reviews. The Secretary will be glad to receive the names of Members who will undertake to notice books sent for review. They are asked to mention the subject with which they would prefer to deal.

Professional Appointments. Members seeking appointments or requiring Assistants should notify the Secretary of their requirements so that they may be entered on the Register. There is no charge.

Subscriptions. Annual subscriptions are due and payable in advance on November 1st of each year, and Members are invited to make use of the Bankers' Order Form method of payment where possible. A form for this purpose may be obtained from the Secretary.

The Examinations. The qualifying entrance examination for Membership is held in April and October. A copy of the syllabus may be obtained from the Secretary. The Graduateship examination has been discontinued in view of the new proposal for grading the Membership.

Awards and Scholarships. Particulars of the Victory Scholarship, the Travelling Studentship, the Architectural Scholarship, and other awards will be announced in the JOURNAL from time to time.

Professional Advice and Defence. The rules and regulations for legal assistance to, and professional defence of Members of the Society are set out in the Year Book together with the Society's Code of Professional Ethics.

Publicity. The Society has a special department for securing publicity in the Press and elsewhere relating to matters in which the Society and its Members are concerned. Members can greatly assist the work of the Society by keeping the Secretary supplied with cuttings from local newspapers or other information of interest to architects in general and Members of the Society in particular.

Beaux Arts Atelier. As soon as the extensions to the Society's premises are completed the Members will be informed of the advantages to be derived from entering the Atelier and the qualifications necessary for doing so.

Changes of Address. Members are requested to notify the Secretary at once of any temporary or permanent changes in their address so that the Registers may be kept up-to-date and the difficulties avoided which arise when communications to Members are returned through the post.

Masonic Lodge. The Lodge meets on the second Wednesday in November, January, March and May, at the Holborn Restaurant. The present Master is Major T. Stewart Inglis, D.S.O., R.F.A., and the Secretary is Mr. C. McArthur Butler. Visiting "members" from other Lodges are always welcome.

Communications. All communications should be addressed to

**THE SECRETARY OF THE SOCIETY OF ARCHITECTS, 28, BEDFORD SQUARE,
LONDON, W.C.1.**
Telegrams "Crypt," Westcent, London. Telephone "Museum" 942.

THE

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The Society is not, as a body, responsible for the opinions expressed by individual authors and speakers.

*The National Housing Policy; with Special Reference to the Causes of the Increased Cost of Building.

BY SIR CHARLES T. RUTHEN, O.B.E., F.R.I.B.A., SENIOR VICE-PRESIDENT OF THE SOCIETY OF ARCHITECTS.

In opening a discussion upon this important subject it is necessary, in my opinion, to review very shortly the salient features of the problem of housing as they appear to present themselves at the present time.

The problem in origin is ancient, but during the last decade its various aspects have changed with varying degrees of rapidity, and within the latter half of this decade the changes have been almost kaleidoscopic in character.

In addressing an audience of critics, experts and specialists, I feel sure it is unnecessary that I should go into details upon the subject of the Housing Problem and the National Policy, if one may be permitted to suggest that there is such a thing in respect to the same.

The extreme seriousness of the housing situation has been apparent to all students for many years, and at the present time I think it will be generally agreed that this great and vital problem has reached a state when its gravity is being appreciated by the "man in the street," a sure and certain sign of notoriety, to an extent unenviable.

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* *Read at a Conference convened by the Society at Olympia on April* 15*th*, 1920.

All those who claim to have any considerable knowledge of the subject of housing will readily agree that the problem is one of great complexity, and that it is not possible to attribute the present position in regard to the same to any particular or individual cause.

The entire situation as presented to-day is due, in the first instance, to the steady and almost uniform failure, in the years immediately preceding the war, of supply to meet the demand, and in the second instance, to the almost complete cessation of house-building during the war period and the period immediately following the Armistice.

The accumulated deficiency in houses for the people is the direct and inevitable result of the combination of those two main causes.

Reasons may be advanced why the supply of houses in pre-war days did not meet the demand; these reasons may be sound or unsound, but it is suggested that time will not be spent profitably in considering these reasons, excepting so far as their effect upon present day supply is detrimental.

However much we may agree or disagree upon the reasons, this, I think, is universally agreed, that the deficiency of houses for the people at the outbreak of war had assumed alarming proportions.

I think, perhaps, it may be accepted that the shortage of houses to-day in England and Wales is not less than 750,000 and, further, that the normal requirements of the population of England and Wales demand the supply of 100,000 new houses per annum.

It may be that I am entering very dangerous territory when I state that in pre-war days the supply of houses reached an average of 80,000 per annum, but for the sake of discussion it would be as well to accept this statement.

It is further quite agreed I think, that practically all the 80,000 houses per annum in pre-war days were supplied by private enterprise. Now the capacity of private enterprise to provide houses in those pre-war days was undoubtedly measured by the labour available for this national work, and as the ranks of the great building industry increased year by year, so the capacity for greater output should have increased.

In fact, as the years passed and the ranks of the industry increased, the output of new houses diminished, owing largely to the diversion of the labour into other directions of building construction.

This diversion without question came about because private enterprise found house-building of the speculative type, particularly the small classes of workers' houses, the most unremunerative and unattractive of all forms of building.

I think it may be accepted that the building industry numbered about 900,000 employees in pre-war days, and was, I believe, the third largest national industry; and that some 200,000 of the total number of employees were engaged in the busy days of speculative house-building upon this form of building enterprise.

I think it may be assumed to-day that to erect 100,000 houses per annum, that is to say the normal requirements of England and Wales, 250,000 employees would be required to be engaged continually. The 750,000 arrears in housing being left out of consideration entirely.

The direct effect of the war upon the ranks of the building industry has been to reduce the workers by possibly not less than 200,000, and the indirect effect has been to reduce the total number by at least a further 50,000, leaving the building industry to face greatly increased demands upon it, numbering little, if any, more than 650,000 workers. I fear the available number is lower even than this.

Besides the enormous arrears of house-building and repairs, there are the tremendous arrears of industrial building with an industry even assuming its productive capacity were equal *pro rata* to its pre-war state reduced in capacity to the extent of more than 25 per cent.

Dr. Addison has expressed the hope that the 100,000 houses for which plans and tenders have been approved by the Ministry of Health will this year be completed, and it is obvious that should this performance be carried into effect, at least 250,000 workers will be required, all working up to their pre-war standard of output. The remaining 400,000 workers will be left for engagement upon all other necessary building work throughout the country. That is to say, presuming the pre-war output per man to be maintained there is required to provide for the normal requirements of England and Wales 50,000 more workmen engaged upon house-building than were so engaged before the outbreak of war.

All the losses in the ranks of the industry due to the war must be taken from the number of men in pre-war days engaged upon all other forms of building.

According to these figures therefore, the 700,000 workers engaged in pre-war days upon building work other than house-building, must be reduced to 400,000.

That is the rough position of affairs as we see them to-day. Now whatever may be the actual reason or reasons, everyone admits that whatever calculations may be made as to how many houses should be built in a certain time by the employment of a certain number of men, the output of houses is not, in fact, materialising. A large number of men previously forming part of the ranks of the building industry have removed to other industries and are unlikely to return to their pre-war occupations, and certainly a large number, but not nearly sufficient, are engaged in other necessary and urgent building work. Some, but I do not think nearly so many as are presumed by some people, may be engaged upon unessential and unnecessary building work. The fear I think remains that house-building work is not proceeding nearly so rapidly as one would wish, and not nearly so rapidly as is necessary for the social security and industrial peace and prosperity of our country.

The reason is stated to be due to the enormous increase in the cost of building, and there is little doubt that this is, in fact, the reason.

It is not because there is insufficient money in the country to meet the cost of housing that progress is slow. It is entirely because there is no prospect that, proceeding upon present lines, the country will withstand indefinitely the shock of supplying a very urgent and important national need at a price obviously below the cost of production.

Subsidies of all kinds are bad in private and in national life, and only lead to irrevocable disaster.

The wages of the workers clearly should be sufficient to purchase the necessaries of life, at a price something above the cost of production, otherwise the whole economic structure totters and must inevitably collapse.

Now to what cause or causes must one look for the present high cost of building, and is that present high cost justified ?

There are a number of reasons that are suggested to one's mind as being responsible for increased cost of building, and they may be set out as follows :—

(*a*) Increased wages payable to the various workers.

(*b*) Reduced hours of labour, so far as such increase the period of construction and prevent the product of labour from rapidly reaching the consumer.

(*c*) Increased cost of materials.

(*d*) Diminution of output of skilled and unskilled labour, of the brain and manual worker.

(*e*) Profiteering by all sections, including the capitalist, the expert and the workmen, and the resultant exploitation of the dire necessity of the State.

I think that all these causes have contributed to the present high cost of building, and that no single cause can be charged with the entire responsibility.

The proper increase in the cost of building work due to increased wages it would be ridiculous to find fault with, and if it is admitted that reduced hours of working necessarily increase the period of execution, which must be so where the volume of labour is strictly limited, then increase in cost of building due to this factor must also be accepted.

Increased cost of materials is due in the main to the two primary factors already named and the discussion of the question of increased wages and reduced hours of labour covers all forms of labour connected with the manufacture of materials or the application of the same to house construction.

Now what proportion of the increased cost of building is due to increased wages and reduced hours of labour, in so far as these factors bear not only upon actual erection, but upon the manufacture of the materials.

I fear the effect of reduced hours of labour upon the productive capacity of the workers in the building industry is much greater than is generally appreciated.

In pre-war days, the working hours per week numbered 54; at the present time these working hours are 47, or a reduction of 13 per cent. That is to say, the capacity of the 650,000 workers in this industry has been reduced to an extent equivalent to the loss of 84,500 workers. In other words, compared with pre-war days, the available workers in reality become 565,500.

On May 1st next, a further reduction to 44 hours per week is to be claimed, making a total reduction as compared with pre-war hours, of 10 hours per week or 18½ per cent.

The available workers therefore become, in effect, reduced to 529,750 or a total reduction in capacity as compared with pre-war days of over 120,000 men, as a result of reduced hours of labour.

These figures refer particularly to South Wales, but I think they may apply generally to the whole of England and Wales. The wages of the skilled craftsman in pre-war days, when the hours were 54 per week, were 9d. per hour and for labourers, 6d. To-day, these wages are 1s. 9d. and 1s. 6d. per hour respectively. On May 1st, it will be demanded that these wages should be increased to 2s. and 1s. 9d. per hour respectively.

The cost of building work to-day reaches any figure between 200 per cent. and 300 per cent. above that ruling in pre-war days. That is to say, a £250 pre-war cottage is priced to-day at from £750 to £1,000 and it would seem that the general tendency is nearer the larger figure and that the prevailing trend is still in the upward direction.

We do not appear to have reached a higher per centage of increase so far as the wages of those engaged in the building industry are concerned, than 150 per cent. upon the average over pre-war wages.

In making this statement, I refer to labour required in the erection or assemblage of the materials as apart from the labour involved in manufacture and transport of materials.

It would appear therefore that there is something unexplained and unaccounted for in the difference between pre-war and post-war building costs in this respect.

It may be argued that the cost of materials has advanced to a much greater extent than the percentage just named ; but it must be remembered that the cost of materials includes the cost of the labour involved in their manufacture and transport generally.

Taking the dwelling house as a unit, there are two distinct parts required for its making ; the materials, some prepared, some raw, necessary for its construction and the labour actually necessary for the working or assemblage of the same.

So with the vast bulk of the materials, there are two distinct parts, the unquarried stone, unmined ore, the unhewn timber and unworked clay and so on, and the labour required for their marketable transformation.

I therefore suggest that the labour required, whether in the winning of the raw materials, the preparation and transportation of the same, or the ordered arrangement of the same in house form ; has not increased throughout more than 150 per cent. or thereabouts above pre-war rates.

To return to my point, again I say that there is an unexplained and unaccounted difference between pre-war and post-war costs in respects of the labour side of building.

I venture to suggest that this difference can only be accounted for by a series of fairly obvious causes, one of which is the diminution of output of the worker, whether that worker be engaged in the manufacture of building material or accessories or in the actual assemblage of the same in house form.

This diminution of output is the reduction of hourly output per man, and must not be confused with the limitation of capacity due to reduced hours of working.

The latter is a serious problem, but I venture to suggest not nearly so serious as the former.

The continued reduction of the hours of labour has not only increased the burden resting upon the shoulders of the sadly depleted ranks of the building industry, already far from competent to undertake the task demanded of it ; but appears to have engendered a spirit of lethargy of a most marked and disastrous character.

That feeling of individual responsibility so necessary for the industrial and social security of the Nation and so characteristic of the British worker in pre-war days appears to have been removed.

I feel that not less than 10 per cent. of the present increased cost of building is due to this cause and a further like percentage to the apparent entire absence of administrative control held by the contracting or supervisory authority.

The responsibility for this latter cause doubtless does not entirely lay at the door of this much criticised section of the industry, but nevertheless that spirit of " don't care " has insidiously crept in, and the result is unsatisfactory to the highest degree.

When the old pre-war system of contracting with its definite responsibility for the speedy and economic management of contract work came to an end, as is largely the case to-day, that personal initiative and responsibility by sheer pressure of circumstances also came to an end, and with the disappearance of these attributes the day of economic and expeditious building, of careful organisation and management, closed.

Goodwill and close co-operation of the three sections of the building industry Architects, Contractors, Manufacturers and Merchants and Labour are required if the economical structure of the building industry is to be re-designed and re-constructed. This structure must be monolithic in the sense that the expert must rely upon the organisation for a proper finished article, and the management must rely upon the quality of the component parts for the satisfactory execution of the works and finally, the labour for the building up of these parts must of necessity take its share in the final and satisfactory completion of the work.

DISCUSSION ON SIR CHARLES RUTHEN'S PAPER.

Mr. Alban H. Scott, PAST V.P.S.A., said he did not agree with one or two points in Sir Charles Ruthen's address. Taking his last point first, did they realise that for a present-day cottage the economic rent would be not less than £60 a year, and if that principle was accepted, it meant that 45,000,000 people would have to suffer in order to get economic rents for 4,000,000. Local by-laws did not lend themselves to new methods of construction. At present they had been suspended by the Ministry of Health for the housing scheme. Manufacturers and people with money would not put their money into an investment that, after all, was only a passing phase. He declared that too much went in profit, and said that in gravel and sand there appeared to be a case of profiteering. He thought contractors were rather backward in the employment of labour-saving devices. It was appalling to see the old methods still in use. They would not get any economy until they got rid of the system of contract with cost plus profit, and architects ought to protest against it.

In regard to the cost of building, suppose a house cost £1,000, how was the money spent? Roughly it might be allocated as follows :—

	£	s.	d.
Raw Materials	25	0	0
Coal or Water Power	6	0	0
Wages on getting raw materials	8	0	0
,, ,, manufacturing ditto and transport	130	0	0
,, ,, site	450	0	0
Waste through processes	6	0	0
Fire Insurance during construction	1	0	0
Insurance of Workmen and National Health and Unemployment Insurance	45	0	0
Rates, Taxes, depreciation of premises and plant ...	80	0	0
Nett profit to manufacturers, transporters, merchants, collieries and on raw materials	179	0	0
Nett profit to General Contractor	70	0	0
	£1,000	0	0

SUMMARY.

	£	s.	d.	Percentage of Total Cost. £	s.	d.
Raw Materials	30	0	0	3	0	0
Wages	585	0	0	58	5	0
Waste	8	0	0		8	0
Insurance, Rent, Rates and Depreciation	127	0	0	12	7	0
Profits	250	0	0	25	0	0
Total	£1,000	0	0	£100	0	0

The above figures cannot be taken as absolutely accurate, but as a very rough guide, and as such, they would see that wages account for half the cost and profit for a quarter of it.

Major Freyburg, F.S.I., said that when he was on the Kensington Borough Council what they call a subsidy now was called charity then. He could not understand how any self-respecting person could take the subsidy. Surely it would be better for the wages to go up so that they might secure these economic rents. The Rent Restrictions Bill prevented anybody building a house to let at a rental. It simply said to the poor, homeless people : " You shall buy your house or else you shall not have one."

Mr. Fenn said he would like to know in what way the reduction of working hours increased the cost of building.

Sir Charles Ruthen, replying, said that he thought Mr. Alban Scott's contribution extremely valuable. He was well aware that an economic rent would be £60, but he could not see any alternative. The subsidy, it seemed to him, must go on continually, unless the cost of building came down to pre-war cost. He did not think the difficulty of raising the wages of the worker who lived in post-war houses cover the wages of workers who lived in pre-war houses was an impossibility. He knew it would be possible. Rationing was difficult, but it was done.

How did the reduction of working hours increase the cost of building ! He thought it was fairly obvious, unless labour was unlimited. The longer the job was stretched out, the longer you had to pay the various incidental and standing costs.

Mr. Ellis Marsland referred to the days of the " jerry " builder before the Finance Act of 1911 was brought in. The " jerry " builder bought his own bricks and sand and lime and he let the brickwork at so much a rod to men who would work in those days, and so the houses were got up. They called them " jerry " builders, but if you could not afford a silk umbrella you had to have a gingham. At least it gave them shelter. For the present, he thought, that in housing, too, we ought to put up with something less than we really wanted.

Mr. Gentry said was it not a fact that the prices of materials had been put up by rings. He thought that had a great deal to do with the problem.

Mr. West suggested that the ranks of the building trade industry had been seriously depleted owing to men having left to work at other trades, and he instanced the Government Depot at Deptford, where, he said, a large number of building operatives might be found. He thought the Government should be asked to discharge these men.

Sir Charles Ruthen said that on the point of combination among manufacturers, it must be remembered there were two combinations—one among the manufacturers, and one among the men. The desire to combine seemed an instinct of self-preservation. The only question was as to whether the men were getting more wages than they ought, and whether the manufacturers were getting more profits than they ought. He thought Mr. West's proposal to force the operatives to work at their proper trades a question for the workman himself. Before the war the operative had been the worst paid of any trade, and was engaged in intermittent labour which did not keep him employed for more than three-quarters of the year. Many of these men now had good jobs in uniform and in other industries, such as engineering and mining, and it would be a difficult and wrong thing to try to get them out.

The Society of Architects at the Building Exhibition, Olympia, April 10-24th.

A short time before the Building Exhibition opened, it was suggested by a Member that The Society of Architects should be in some way represented there, the idea being to afford Architects an opportunity of getting into closer touch with other branches of the Building Industry. Negotiations with Mr. Greville Montgomery, the organiser of the Exhibition, resulted in the Society acquiring the use of the Princes Rooms and a Conference Hall at Olympia, and a programme of Conferences and social functions was rapidly arranged.

The Club and the Conferences proved a great success, and enough results were shown to justify the elaboration of the scheme in future years on a much enhanced scale, when the time for preparation will naturally be longer.

The Princes Rooms were fitted up and furnished in excellent style and taste by Messrs. Arding and Hobbs, of Clapham Junction, as an Architects' Club comprising Members' Rooms, Offices and the President's Room. Light refreshments were available, and a telephone was installed. There were facilities for reading and writing, and the usual other conveniences of a Social Club.

The Society's Staff were in attendance every day; the President and other Members of the Council were frequently present to meet the Members and the visitors who honoured the Club with their presence. One of the Commissionaires on duty at the Club was Sergeant Hampton, V.C., who won the Cross in the S. African War.

The Exhibition was opened by the Rt. Hon. Dr. Addison, M.P., Minister of Health, on April 10th. The Society was officially represented by the President, Mr. Edwin J. Sadgrove, and the Vice-Presidents and other Members of the Council. After the official ceremony, Members of the Society and their friends adjourned to the Club, and afterwards visited the Exhibition.

On Monday, April 12th, the Society welcomed at the Club, thirty French delegates, who were visiting this country to enquire into the conditions of the Building Industry. The President and other Members of the Council met the delegates, who expressed their appreciation of the Society's kindness and hospitality.

Sir Tudor Walters, M.P., was to have spoken on "Subsidies to Private Builders" at the meeting, on April 13th, but was prevented by illness from attending, and his representative, Mr. E. C. L. Mosse, of the Housing Department of the Ministry of Health, deputised and gave a general outline of the Subsidy Scheme, and replied to questions raised.

Wednesday, April 14th was a "rest-day" from meetings, and the Club was utilised by many Members and visitors.

On Thursday the President gave a luncheon at Olympia to Members of the Council to meet Mr. Greville Montgomery, who gave some interesting details in regard to the present Exhibition, and his hopes for the future, and afterwards conducted the Members of the Council round the Exhibition. Later in the afternoon, various Committee meetings were held in the Club, followed by an Ordinary Meeting in the Small Conference Hall, and an Extraordinary General Meeting at which the proposed alterations to the Articles of Association were confirmed. A public Meeting followed. Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., Vice-President, opened a discussion on "The National Housing Policy; with special reference to the Increased Cost of Building."

On April 16th, a meeting was held in the Small Conference Hall, when Mr. J. W. Beauchamp, Director of the Electrical Development Association, read a paper on "Electricity in relation to Fuel Economy," the paper being followed by a discussion.

The Club proved a great attraction on Saturday, April 17th, when the Exhibition was crowded.

The Society welcomed several Belgian delegates at the Club, on Monday, April 19th, and in the afternoon, the Society met representatives of the National Federation of Building Trades' Operatives who introduced through the President of the London District Council of their body, Mr. J. P. Lloyd, a discussion on "General Building Problems."

During the course of the discussion, it was intimated that the operatives were very dissatisfied with the plans passed by the Ministry of Health for working-class dwellings, and that unless the houses were better designed, larger, and better decorated, the men might refuse to build them. It was generally agreed that further conferences on the lines of the one then held would do a great deal to clear up many misunderstandings both in the minds of the Architects and of the Operatives.

The Club was visited on April 20th, by H.R.H. Princess Louise, Duchess of Argyll, who showed great interest in the arrangement, and chatted for some minutes with Sergeant Hampton, V.C., the Society's Commissionaire on duty.

A large party of members of the National Federation of Building Trade Employers were the guests of the Society to tea in the Club, and afterwards the party adjourned to the Small Conference Hall, where the representatives of the Federation explained some of the main points of the new National Building Code set up by them.

On Wednesday, April 21st, the Club was visited by a number of Chinese delegates visiting the Exhibition, who were welcomed by the officials of the Society and appeared to very much appreciate the Society's hospitality. In the afternoon, the Society met the representatives of the Architects and Surveyors' Assistants' Professional Union in the small Conference Hall, when their aims and objects, amongst them being the establishment of a minimum wage, minimum pay for overtime, and fixed hours of work, were explained.

On Thursday, April 22nd, H.R.H. Prince Albert, K.G., attended by his Equerry, Wing-Commander Louis Greig, honoured the Society by visiting the Club. The President and Members of the Council, the Secretary and Assistant-Secretary were presented to the Prince, who expressed his regret that a previous engagement precluded his staying to the Society's luncheon. The Prince then left the Exhibition, and the President and Council adjourned to the Pillar Hall, to welcome the Society's guests, who included : The First Commissioner of Works, the Rt. Hon. Sir Alfred Mond, Bart., M.P. (who proposed the toast of "The Society"), Colonel Sir Henry Norris, M.P., Sir Kingsley Wood, M.P., Major Harry Barnes, M.P. (Member), Mr. Greville Montgomery, and many others representing all sections of the Building Industry.

Mr. H. H. Creasey, of the British Commercial Gas Association, read a paper on "Gas Heating in Relation to Economy in Building," on Friday, April 23rd ; the paper, which was illustrated by models and diagrams, was followed by an interesting discussion.

The Exhibition closed on Saturday, April 24th, and during the evening the Club was the scene of a presentation by the Exhibitors to Mr. Hugh Montgomery, in recognition of his courtesy and kindness to all concerned.

Reports of the discussions at the Conference, will be published in this and subsequent issues of the JOURNAL.

The thanks of the Society are due to Mr. Greville Montgomery, the organiser of the Exhibition, for placing at their disposal the facilities which enabled them to carry out their programme and achieve their object.

*Subsidies to Private Builders.

By Mr. E. C. L. Mosse, of the Ministry of Health.

Mr. Edwin J. Sadgrove, F.R.I.B.A., President, took the chair on Tuesday evening at the first of a series of conferences organised by the Society, at Olympia, during the Building Trades' Exhibition. Sir Tudor Walters, M.P., who was to have spoken on "Sudsidies to Private Builders," was absent through illness. He had, however, delegated Mr. E. C. L. Mosse to speak in his stead.

Mr. Mosse, of the Housing Department of the Ministry of Health, said that he was sorry Sir Tudor Walters had been prevented from coming, because he was the parent, to some extent, of the scheme they were to discuss. The original Government proposal was that houses should be provided through the Local Authorities, and that still held good. He then proceeded to give a general outline of the scheme and of the supplementary scheme of housing by Public Utility Societies. In spite of these two schemes, however, there was a feeling among a good many that there was still something more to be done, and that private enterprise should be given a chance, and that they should get rid of red-tape. Builders felt rather shy in entering upon a Government scheme that involved the following of restrictions and regulations, but on the other hand, the public demanded that there should be some sort of supervision in the spending of what they considered to be their own money. They had therefore to steer a course midway, and he thought the Government subsidy reduced the necessary safeguards—the red-tape as they would call it—to the absolute minimum.

The scheme enabled the private individual to own his own house, but the chief difficulty was finance. The Government subsidy varied from £130 to £160, according to the size of the house, and the additional capital had to be found by the builder. The Government were not willing to enter into any loan. He thought that some building societies would advance as much as 75 per cent. of the actual cost of building to intending occupying owners, and would also make advances to speculative builders, but not to the same extent. The Ministry had also approached the banks, and understood that they would lend to builders who were entitled to the Government subsidy.

Now as regards the plans, there were very few limitations, and the architect had a very free hand. If he were in any doubt as to whether his plans would be approved, he would be on pretty safe ground if he based his plans on the Ministry of Health's models, or he might follow plans already approved. When the plans had been approved by the Housing Commissioner there was nothing to fear from the local bylaws, because where they might be inconsistent they would not apply.

The scheme was not going well, he confessed. Up to the present certificates had been issued for about 3,800 houses, and that was not much to boast about. They did want help in bringing the scheme to the notice of the builders, and they wanted help from private societies such as The Society of Architects, for they could not get houses built by sitting in Whitehall and issuing memoranda.

The Chairman then asked for any questions that any present might desire to put.

Mr. Thompson (Westcliff) asked what happened in the event of plans submitted to a Local Authority being not approved, although they might be in accordance with the Ministry's regulations?

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* Notes of a discussion opened by Mr. Mosse at a meeting at Olympia, on April 13th, 1920

Mr. Mosse replied that redress lay in an appeal to the Regional Housing Commissioner. But approval of plans by the Ministry did not exempt them from compliance with the general law on such points as water supply and sewage disposal. There they would have to come before the Law Courts, over which the Ministry of Health had no jurisdiction.

Mr. Thompson asked why should not the Local Authorities accept the specification which the Ministry of Health laid down ?—the Ministry's regulations were at variance with the local by-laws in so many towns.

Mr. Mosse explained that where an appeal was made to the Regional Commissioner the procedure would be that the Commissioner would visit the Local Authority and say that they really ought to issue the certificate, and in most cases they would.

Mr. Thompson said that the architect did not care to run foul of the Local Authority, which could make things very unpleasant for him in after times.

Mr. Thompson asked what was the object of a maximum floor space ?

Mr. Mosse said they had to draw the line somewhere, and what they had to do first of all was to meet the need for small houses, and if they started extending the scope, where would they stop.

Mr. Mosse said that he would like to hear their opinions upon the defects of the scheme.

Mr. Marlowe Reade said that he was surprised to hear that 3,800 certificates had been issued.

Mr. Stedham (Torquay) said that he thought the Government Housing Scheme had not " caught on " because the Banks would not advance more than two-thirds of the pre-war cost, and looked very much askance at advancing even that. Another reason was that the Government grant was given only when the house was completed.

Several speakers thought that the subsidy should be about doubled.

Mr. Thompson said people would think twice before they invested in real estate after Mr. Lloyd George's " People's Budget " of 1910. They feared similar legislation in the future.

One speaker thought the Rent Restrictions' Act kept people from building.

Mr. Stedham said that it only required the Rent Restrictions' Act to go on for another three years to put the last nail in the coffin.

Mr. Marlowe Reade said that but for the Rent Restrictions' Act the profiteering which would result would culminate in revolution.

Mr. Thompson pointed out that at present there was not an adequate return.

One gentleman suggested that the subsidy should be extended to apply to the conversion of existing houses into flats.

Mr. Mosse replied that he was in entire agreement, but it would require an amendment of the Act to deal with it.

" Did the subsidy apply to houses built over shops ?" was next asked, and Mr. Mosse said that he did not think the builder was entitled to a subsidy in that case.

In response to further questioning, Mr. Mosse said that under the present scheme flatted cottages of not more than two stories could be brought in.

Mr. Percy Tubbs, F.R.I.B.A., thought that the working-man should be encouraged to build houses for himself, though the average working-man of to-day did not seem to want to own his house. He suggested that propaganda should be set afoot to educate the working-man on the advantages.

Mr. Mosse said he quite agreed, and the Ministry were doing all they could to facilitate matters.

A gentleman suggested that the subsidy should be based on the cost of the house. With that Mr. Mosse disagreed on the ground that it would encourage extravagance, while what they wanted was to encourage economy in building.

The Chairman, in moving a vote of thanks to Mr. Mosse, said that the chief points that arose were : That the subsidy was not big enough, or that the present trouble of the Ministry would not have existed ; secondly, some of the builders were holding back because of fear of further legislation of a similar kind as that thrust upon them in 1910. Another nightmare was the Rent Restrictions' Act. He thought that it would be admirable if the Act could be made to cover the conversion of houses into flats, of which there had been no thought when the Act was drafted, or else those concerned did not want to think of it. Mr. Percy Tubbs' suggestion as to the working-man owning his own house was, in his opinion, opposed to the policy of the Labour Party. He thought a large number of working men would like to own their own houses, and the Government would be only too pleased to support them, but there was always the trouble that they were afraid.

Mr. Marlowe Reade seconded the vote of thanks, and said that he thought the Labour Party were quite right. A man could not carry his house with him, and when he had to move about for work he wanted to be a free agent. Nevertheless, he thought Housing Bonds would bring about the result Mr. Tubbs desired.

Responding, Mr. Mosse thanked them for the suggestions made, and assured them that he would report them to the proper quarter. The amount of the subsidy would be considered at the Ministry of Health, who were always ready to help anyone, and if they would bring forward their difficulties it would be to the advantage of all concerned.

Addresses Wanted.

MEMBERS.

The Society's Journals sent to the following Members, etc., have been returned through the post marked "Gone away." The Secretary will be glad to hear from anyone who can put him in communication with any of these Members.

C. A. Aish (London), H. C. Anderson (Heywood), J. Bevir (Lymington), G. A. Birkenhead (Vancouver), D. J. Campkin (London), F. Clemes (Grimsby), P. Rogers Cooke (Germiston, South Africa), E. N. Cubitt (Brentwood), A. H. Davies (Newport, Mon.), G. W. Davies (Grimsby), J. L. Donnelly (Dublin), S. A. Hall (London), J. M. Hatfield (Barnes), F. W. Higginbotham (Dublin), T. J. Holland (London), R. R. W. Hide (Worthing), H. Jackson (London), David J. Jones (Ealing), H. F. Keighley (Blackpool), A. E. King (Mansfield), W. E. Knapman (Exmouth), W. Leicester (Manchester), R. T. MacArthur (Birmingham), Cecil T. Mitchell (Johannesburg), A. C. Payne (London), R. T. Perry (Vancouver), Ernest Rose (Rhodesia), C. D. Ruttes (Wrexham), J. B. Sanders (Crawley), S. N. Shrimpton (Cardiff), J. A. Souttar (London), J. J. Taylor (Darlington), T. G. Williams (Liverpool).

STUDENTS.

A. C. Bedington (Newquay), Leonard Cavanagh (London), Arthur Oates (South Shields), W. G. Parkin (Hampstead), C. H. Roberts (London), J. R. Thomas (Colchester), S. E. Urwin (Birmingham), R. C. Vander Schyff (Pretoria).

Proceedings of the Society.

An Ordinary Meeting of The Society of Architects was held in the Small Conference Hall, Olympia, during the course of the Building Trades Exhibition, on Thursday, 15th April, 1920, at 5.30 p.m. The President, Mr. Edwin J. Sadgrove, having taken the Chair, the Minutes of the previous Meeting and of the Extraordinary General Meeting as published in the Journal were taken as read, and were confirmed and signed.

The Secretary announced seventeen nominations for Membership, the reinstatement by the Council to Membership of T. S. Lello, of Chadwell Heath, and the admission by the Council to the Register of Students of Cyril Stephen Baker, of Plymouth ; Reginald Charles Cornelius, of Frome ; Walter Bernard Gunnell, of Sittingbourne ; Stanley Ashley Lambert, of Dorchester ; Frank Newton, of Littleton ; and John Vandersluys Thomas, of Camborne. He also announced the resignation of P. S. Parris, Member, of Crowborough.

The Ballot was then taken for the election of the Following Candidates for Membership, and was declared to be unanimously in their favour :—

Aitken, Henry Andrew, 1, New Court, Lincoln's Inn, W.C.2. Boothroyd, Norman, Quebec House, Quebec Street, Leeds. Dexter, Benjamin Charles, 13a, Wootton Road, Cricklewood, N.W.2. Dyer, Henry John Griffin, 76, Milton Road, Portsmouth. Fielding, Walter Harrison, O.B.E., Quebec House, Quebec Street, Leeds. Glass, John Guthrie Lornie, Lyndhurst, Cliff Parade, Leigh-on-Sea, and Bonnacord, Perth. Goode, George Henry, 9, St. Paul's Square, Bedford. Hickson, Clifford, 1, St. Peter's Street, Huddersfield. Hickson, Harry Armitage, 9, Bank Chambers, High Street, Doncaster. Johnson, Cornelius Fletcher, 38, St. John's Avenue, Bridlington. Keatinge, William Sedgwick, M.R.I.A.I., 14, Lower Sackville Street, Dublin. Lissaman, William Lino, Islay House, Broadway, Worcestershire. Moore, John, 38, Nottingham Road, Derby. Parsons, Harold Richard, 105, Colmore Row, Birmingham. Reid, Alexander William Douglas, One Acre, Milford-on-Sea, Hants. Shields, George Darnley, "Chellow Dene," North Street, Bridlington. Thorpe, Sidney, The Cottage, Bradford Road, Wakefield. Waple, Frank Harold, 282, Balfour Road, Ilford. Weeks, Alfred Henry, 46, Fairfield Avenue, Victoria Park, Cardiff.

The proceedings then terminated.

An Extraordinary General Meeting of The Society of Architects was held at the Small Conference Hall, Olympia, on Thursday, April 15th, 1920, to confirm the Resolutions to alter the Articles of Association of the Society passed at the Extraordinary General Meeting of the Society held on March 25th, 1920, at 28, Bedford Square, W.C.1.

The President, Mr. Edwin J. Sadgrove, having taken the Chair, the Secretary read the Notice convening the Meeting.

The President said that ample opportunity had been given for full discussion of the matter, and the general approval of the Members of the Society as a body was shown by the fact that only two proxies against the proposed alterations had been received from the whole of the Membership. He had received over 300 proxies in favour of the Resolution, and he concluded that other Members who had not voted thereby signified their assent.

He then moved the following Resolution :—

> "That the new Regulations adopted at an Extraordinary General Meeting of the
> "Society on March 25th, and for the purpose of identification subscribed by the Chair-
> "man thereof, be and the same are hereby approved, and the said Regulations be and
> "they are hereby adopted as the Regulations of the Society to the exclusion of all the
> "existing Regulations thereof."

The Resolution was seconded by Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., Senior Vice-President, and the Chairman invited discussion. There being no questions raised, the Chairman put the Resolution to the Meeting and declared it to be carried unanimously.

The proceedings then terminated.

A Public Meeting, convened by The Society of Architects, was held in the Small Conference Hall, Olympia, on April 15th, 1920, at 6 p.m., to consider the question of the National Housing Policy with special reference to the increased cost of building.

Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., Senior Vice-President, opened the discussion, and was followed by Mr. A. Alban H. Scott, Past Vice-President, Mr. Fenn, Mr. Ellis Marsland, Mr. Gentry, Mr. West, and other speakers.

A hearty vote of thanks was accorded to Sir Charles T. Ruthen, who replied to points raised.

The proceedings then terminated.

Publicity.

During the past month there can hardly be any part of the United Kingdom in which the work of the Society has not been brought prominently before the public, through the medium of the Press. In many other cases and in very many papers the Society has been mentioned, but the Press publicity indicated below was the work of the Society's Publicity Department.

HOUSING AND THE TRADE UNIONS. In a leading article in the *Morning Post* of April 26th, the President of the Society is quoted as an authority for various statements made.

UNIFICATION AND REGISTRATION. A letter from the Secretary appeared in the *Builder* of April 2nd welcoming the revival by others of his proposal of 1912 for a federated Council representative of all Architectural bodies, for securing Statutory Registration.

CROSSING THE RUBICON. A letter from the Secretary appeared in the *Architect* dated April 2nd, deprecating the suggestion made in that journal that because the R.I.B.A. had held a meeting and passed various resolutions, therefore amalgamation between the R.I.B.A. and the Society must necessarily be as good as accomplished.

ARCHITECTS AND THE PEOPLES' HEALTH. In the *Architects' Journal* of March 31st there appeared a letter from the Secretary commenting upon the article under the above heading dealing with Registration written by Mr. Crossley Davies.

VICTORY SCHOLARSHIP. Particulars and conditions of the Society's Victory Scholarship Competition appeared in all the professional journals.

BUILDING EXHIBITION. Preliminary particulars of the Society's programme for the Building Trades Exhibition appeared in the *Times*, *Morning Post*, *Daily News*, *Daily Chronicle*, and in the professional journals.

V.C. COMMISSIONAIRE. Photos of Sergeant Hampton, V.C., one of the Society's Commissionaires at the Architects Club, at Olympia, appeared in the *Daily News*, *Daily Graphic*, *Daily Sketch*, *Daily Mirror*, *Liverpool Courier*, and *Liverpool Evening Express*.

SUBSIDIES TO PRIVATE BUILDERS. Reports of the Society's meeting addressed by Mr. E. C. L. Mosse, of the Ministry of Health, on this subject at Olympia, appeared in the *Times, Daily Telegraph, Morning Post, Daily News, Daily Chronicle, Pall Mall Gazette, Evening Standard, Liverpool Courier, Yorkshire Post, Birmingham Daily Gazette, Bethnal Green News, Sheffield Independent, Leeds Mercury, Manchester Guardian, Islington Daily Gazette, Birmingham Daily Mail,* and in many other daily papers and in the professional journals.

NATIONAL HOUSING POLICY. Sir Charles Ruthen's paper, read before a meeting of the Society at Olympia on April 15th, was reported in very many papers, including the *Times, Daily Telegraph, Morning Post, Daily News, Daily Sketch, South Wales Daily News, Birmingham Daily Mail, Western Evening Herald, Evening Standard, Westminster Gazette, Nottingham Express, Birmingham Daily Gazette, Liverpool Evening Express, Newcastle Chronicle,* and the professional journals.

GENERAL BUILDING PROBLEMS. Reports of the Society's Conference with representatives of the National Federation of Building Trades' Operatives appeared in the *Daily News* (twice), *Star, Morning Post, Evening Standard, Daily Telegraph, Times,* and other papers, and in the professional journals.

ARCHITECTS AND SURVEYORS ASSISTANTS' PROFESSIONAL UNION. Reports of the Society's Conference with representatives of this Union appeared in the *Morning Post, Daily News,* and other papers, and in the professional journals.

NEW NATIONAL BUILDING CODE. Reports of the Society's Conference with representatives of the National Federation of Building Trades' Employers appeared in the *Times, Daily Telegraph, Morning Post, Daily News,* and other papers, and in the professional journals.

NOTICES AND REPORTS OF LUNCHEON. Notices and reports of the Society's Luncheon, on April 22nd, and of the visit of H.R.H. Prince Albert, K.G., to the Society's Club on that day, appeared in the *Times, Daily Telegraph, Morning Post, Daily News, Daily Express, Daily Graphic, Daily Mirror, Daily Sketch, Pall Mall Gazette, Evening News, Evening Standard, Westminster Gazette, Star, Globe, Manchester Guardian, Financier,* and in many other papers in all parts of the country, and in the professional journals.

CRISIS IN THE BUILDING TRADE. An article appeared in the *Evening News* under this heading on April 22nd, in which interviews were published with a leading Architect, Builder, and Operative. The Architect chosen was the President of the Society.

BUILDING RINGS. Interviews with Mr. Percy Tubbs, a Past-President of the Society, with reference to the Building Manufacturers' combines, appeared in the *Daily Express* on 27th and 28th April.

THE SOCIETY'S PROCEEDINGS. Reports of the Society's procedure and general news connected with the Society's work have appeared with regularity in the professional journals.

COMPETITIONS. A letter from the Secretary advocating that the Conditions of all Competitions should contain a note to the effect that they had been agreed by a joint Committee representing the R.I.B.A., the Society, and allied Societies, so that members of those bodies might know that it was in order for them to compete, appeared in the R.I.B.A. *Journal* of 10th April.

The Architects and Surveyors Assistants' Professional Union.

Representatives of the Architects and Surveyors Assistants' Professonal Union were present at a Conference at the Building Exhibition on April 21st, to explain the scope and objects of their organisation. Mr. E. J. Partridge, F.S.I., Past Vice-President, S.A., took the chair.

Mr. R. G. Llewellyn Evans, M.S.A., Chairman of the Executive Committee of the Union, thanked The Society of Architects for their hospitality and for the opportuity afforded the Union of explaining their objects to the practising architect. He had hoped the meeting would have been attended, not only by their own members, but by a sprinkling of the employers, whose sympathy they wanted to secure. He then proceeded to outline the main aims of the Union which were :—

(1) To provide a common organisation for salaried Architects, Surveyors, Quantity Surveyors, Draughtsmen and Technical Assistants, and to protect their individual interests.
(2) To watch over and secure efficient training of its members.
(3) To abolish unpaid and underpaid assistance, to establish a minimum wage and proportionate upward minimum rates, and to establish proper payment for overtime.
(4) To secure "open" references to Assistants.
(5) To form an up-to-date employment bureau.
(6) To assist members, where necessary and possible, in the execution of their private commissions and in commencing practice.
(7) To assure the direct representation of its members on the Governing Councils of all professional bodies and to encourage co-operation with them and practising Architects.
(8) To provide opportunities for social and professional intercourse.

Continuing, he said that the Union was the outcome of present conditions. Everybody acknowledged that before the war the architect's assistant was exceedingly badly paid. The Union had now been established a year, and numbered well over a thousand. It was a strong Union, and was getting stronger every day, and they had branches all over the country.

Mr. C. MacLachlan, A.R.I.B.A., Hon. Secretary of the Union, said that many years ago, out of those who entered the profession, ninety per cent. ultimately achieved their own practices. To-day, the number who did so was less than 50 per cent. They seemed to be getting toward the American system, where there were large staffs of assistants with only a few principals. To-day, the poor man's chances of getting clients were very few. A man with only a second-class education found himself handicapped. The rich man, talent or no talent, had a tremendous pull in potential clientele, from the friendships he had formed at School and College, which the secondary school man had not got, with the result that he was driven out of the profession. The R.I.B.A. took a very strong view against official architecture, but nevertheless such positions were the only refuge for men who could not achieve practices. Referring to the Registration of architects, he doubted whether it would be of much use to assistants. It would cut out many men who were doing office work and found themselves able to do a little "donkey" work for builders.

Mr. T. Braddock, said that five or six years ago, a Union such as theirs was practically undreamt of, yet it had come into being because it was necessary, and no other such Union had secured so large a membership in such a short time.

Architect's assistants were in the majority of cases underpaid, and the man who was to blame was the assistant himself, because he had not made any effort to better his position. At last they had had it forced in upon them that the men who were best able to keep up with the ever-increasing cost of living were, among the manual workers, the best organised, such as railwaymen and engineers. Before the war, it would be agreed that the assistant's position was particularly bad, and at the present time there was no encouragement for him to remain in the profession. It was a bad thing for everybody that it was so. There was a crying need in all architects' offices for men of ability, and the only thing that could supply the need was to increase their position and pay.

Sir Charles T. Ruthen, o.b.e., f.r.i.b.a., Senior v.p.s.a., said that he could not see why they should not join together, and why joining together should not have beneficial results for the assistants and the profession generally, but there were many statements with which he disagreed. He thought that if a man could not achieve his own practice, it was his own fault. He had just heard it said that the assistant had no opportunity. He believed everyone had an opportunity. Ability, he held, must come to the top. Influence would get a man work, but it would not keep it for him. With regard to the disappointment which had been expressed at the small attendance of practising architects at that meeting, he said he felt strongly that the average architect took no interest in the ordinary matters of life.

Success, he maintained, was gained by hard work, and to point to anyone and say, he was a fortunate man was a libel on him. The "fortunate" man was a hardworking man, and that was why he had got on. He did not believe that any man could be kept in an architects' office if he wanted to get out of it; but he would want pluck, as well as ability. Architectural practise was treacherous, as, for example the position of many good architects after the war. They had had to start all, over again. They might have been deriving big incomes from their work, but they had been wiped out as by a sponge passing over a slate. He advocated the young architect to open his chances for getting work by taking his part in the public life of the district. Concluding, he said, he was very pleased to support the Union, and he hoped he had not said anything that might be thought detrimental to it.

Mr. E. J. Sadgrove, f.r.i.b.a., p.s.a., said he was in sympathy with any proposal for improving the position of the assistant, and he did not think fully-trained assistants would have any trouble in obtaining a minimum wage, but unless the Union were prepared to give some certificate of qualification, he did not see on what ground they were going to base a claim. He proposed a vote of thanks to the members of the Union for their attendance.

Mr. W. H. Webber, a quantity surveyor, seconded the vote of thanks, and said that if the assistant of to-day was not highly paid, at any rate he had not to take the risk of the principal, who had often much work for which the payment was nil. So far as quantity surveyors went, they could not get assistants under nine pounds a week, and they were getting up to fourteen and fifteen pounds a week. He, at least, was not underpaid, and never had been.

He felt that the man who came on top had to take his courage in both hands. His experience had been that it was almost impossible to make the principal unless the assistant was fitted for the position. Concluding, he wished the Union every success.

The Chairman said he was sure the Union had the sympathy of the employers. With regard to underpayment, he acknowledged that had been a grievance in the past, but undertraining had also been a difficulty. Mr. MacLachlan doubted whether Registration was going to be of any use to the assistant. In his own mind there was no doubt that it would be of use to both the architect and the assistant, and he could not see why it should prevent the assistant from doing "donkey" work.

In responding to the vote of thanks, Mr. Evans replied to some of the criticisms. He could not agree that ability was necessarily bound to come to the top, and he instanced one or two cases. With regard to a minimum wage, employers could still take the best talent that offered, and let the other men get out of the profession. At present, there was a shortage of good assistants, because they were not making the profession attractive enough for the right kind of man.

The Society of Architects' Luncheon.

The President, Mr. Edwin James Sadgrove, F.R.I.B.A., took the chair at a luncheon given by the Society, at Olympia, on Thursday, April 23rd.

Amongst the guests of the Society were: the Rt. Hon. Sir Alfred Mond, Bart., M.P., H.M. First Commissioner of Works; Sir Kingsley Wood, M.P., Parliamentary Private Secretary to the Ministry of Health; Colonel Sir H. G. Norris, M.P.; Sir G. Woodhead, Major Harry Barnes, F.R.I.B.A., M.S.A., M.P.; Mr. I. G. Gibbons, Assistant-Secretary, Ministry of Health; Mr. J. Walker-Smith, Deputy Director of National Housing; Mr. Arthur Keen, F.R.I.B.A., Hon. Secretary, R.I.B.A.; Mr. Ian Macalister, B.A., Secretary, R.I.B.A.; Mr. A. Goddard, Secretary, Surveyors' Institution; Mr. F. R. Yerbury, Secretary, A.A.; Mr. H. Greville Montgomery; Mr. J. P. Lloyd and Mr. J. Murrey, of the Federation of Building Trades' Operatives; Mr. G. Ll. Evans, Chairman, and Mr. C. McLachlan, A.R.I.B.A., Hon. Secretary of the A. and S.A.P. Union. There were also present: Sir Ambrose Poynter, Bart., F.R.I.B.A.; Sir Charles T. Ruthen, O.B.E., F.R.I.B.A. and Mr. Burnet Brown, F.S.I., Vice-Presidents; Mr. Percy B. Tubbs, F.R.I.B.A., Past-President; Mr. E. J. Partridge, F.S.I., Mr. A. Alban H. Scott, and Mr. G. Baines, F.R.I.B.A., Past Vice-Presidents; Mr. Noel D. Sheffield, F.S.I., Hon. Secretary; Mr. George H. Paine, Hon. Treasurer; Mr. C. McArthur Butler, F.C.I.S., Secretary; Mr. T. Hall Jones, F.S.I.; Major Freyberg, F.S.I.; Mr. Ellis Marsland, Mr. H. C. H. Monson, Mr. J. Herbert Pearson, Mr. Alfred J. Taylor, Mr. Thos. Wallis, Major C. F. Skipper, Members of Council, and a large gathering of other Members and their friends, including a number of ladies.

Proposing the toast of "Our Guests," the Chairman said that there was a necessity that the producer could come into contact with the purchaser, hence such exhibitions as that under the roof of which they were assembled. Thanks were due from them all to Mr. Greville Montgomery, whose organisation of the Exhibition had been admirable. Builders and operatives had held several conferences under the auspices of the Society, and these gatherings had done much good in smoothing over difficulties, and in establishing harmony between all the branches of the building trade. He took the opportunity of making an appeal in the absence of Col. Trollope on behalf of the disabled soldiers, who could, as shown at the Exhibition, be trained to become bricklayers in six months' time. Colonel Trollope would be glad to hear from those who wished to respond to this invitation.

Referring to the visit of H.R.H. Prince Albert to the Society's Club, at the Exhibition that morning, they all regretted that he had been unable to remain for lunch, but the Society hoped that on some other occasion, he would honour them with his presence.

He had heard, he continued, that "luxury" building was to be stopped in order that workmen might have dwellings first. From the Government point of view, it appeared that cinemas, theatres, and other places of amusement, and even some business premises were "luxury" buildings. It would be a great mistake, he thought, if the Government attempted to lay down that every class of building other than that of "housing," was a "luxury." Such a decision would inflict further injury on architects, who had already suffered so much in the war, and on other sections of the community, without achieving the object in view.

Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., Senior Vice-President S.A., said it was no use talking about what was a "luxury" building and what was not, because the point was, that if they did not get houses they would not get any other building. He thought it very necessary for the three sections of the industry to get together, to further housing progress, and the other questions would resolve themselves.

VISIT OF H.R.H. PRINCE ALBERT, K.G., TO THE BUILDING EXHIBITION, OLYMPIA,
22ND APRIL, 1920.

In the group will be seen Mr. Percy Tubbs (Past President); Mr. Greville Montgomery (Director of the Exhibition); Mr. E. J. Sadgrove (President); Sir Charles Ruthen (Senior Vice-President); Mr. Thomas Wallis (Member of Council).

Sir Kingsley Wood, M.P., Parliamentary Private Secretary to the Minister of Health, said that there were three million people who were badly in need of housing accommodation, and it was obvious that houses must come first. The Ministry, however, intended that, subject to that reservation, no legitimate and proper undertaking in connection with factories or commercial enterprise should be unduly interfered with. It devolved on the Local Authority to have regard to the needs of the particular locality, and then to decide whether or not specific buildings should be proceeded with. They hoped that by using common-sense and sympathetic consideration they would get a satisfactory solution. The suggestion had been made that unless the houses needed were found, we must have some form of rationing. Without expressing an opinion on that, he thought it indicated that one of the great reasons of industrial unrest was the housing shortage. The Ministry had grave anxiety on two matters—finance and labour. It was a matter of great regret to the Minister that the recent issue of housing bonds in certain localities had met with so little success. With regard to labour, he hoped the Conferences that were now taking place between employers of labour and trade unionists, with a view to augmenting the labour in the building trade, might be successful. There were a large number of ex-Service men still out of employment, and under the Ministry of Labour it had been found practicable to train a man to become a bricklayer within 6 months. There was no danger of unemployment in the industry for years to come.

Colonel Sir Henry Norris, M.P., said that unless the Government found means to prevent the housing bonds from deteriorating within a few months, as war stock had done, they would find investors chary of them.

Mr. I. G. Gibbons, Assistant-Secretary, Ministry of Health, thought that architects had been slow in adopting new methods of construction, and in making suggestions in regard to housing. The last returns showed that 800,000 houses were needed, and if even a small part of that total were to be achieved there must be co-operation among all sections of the industry. They were not going to get anything like the number of houses they wanted if they were going to depend on bricks. There was not the labour, and there was not the materials. They would have to resort to other methods of construction. He occasionally found architects a little old-fashioned in their attitude towards new methods of construction.

The Rt. Hon. Sir Alfred Mond, M.P., First Commissioner of Works, proposing the toast of "The Society of Architects," said the architect was too often looked on as superfluous, and one employed by people with more taste than sense. But it was no dearer to build a beautiful cottage than an ugly one. The hideousness of many existing houses induced depression among the industrial classes, and was a factor in unrest.

In the course of his response, the Chairman said : he understood from Mr. Alban Scott, Past Vice-President, Chairman of the Construction Committee of the Ministry of Health, that the Department of Scientific and Industrial Research had agreed to form a Building Research Board, and that this would be shortly an accomplished fact. Both the Society of Architects and Mr. Alban Scott had advocated this step for the last two years. The building industry had been hampered too long by restrictive by-laws, and they wanted them made more elastic, though always on the side of safety.

Articles of Association

OF

The Society of Architects.

Founded 1884. *Incorporated* 1893.

(AS REVISED AND AMENDED BY SPECIAL RESOLUTION ON THE 25TH OF MARCH, 1920, AND CONFIRMED ON THE 15TH OF APRIL, 1920.)

Meaning of Terms.

1.—These articles shall be construed with reference to the provisions of the Companies (Consolidation) Act, 1908, and the terms used in these articles shall be taken as having the same respective meanings as they have when used in that Act.

Purposes of the Society.

2.—The Society is established for the purposes expressed in the Memorandum of Association of the Society.

Classes and Qualification.

Number of Classes.

3.—The Society shall consist of six classes, viz.; Honorary Members, Retired Members, Fellows, Members, Licentiates and Students.

Qualification and privileges of Honorary Members.

4.—Honorary Members shall be persons who shall have rendered, or who are or may be in a position to render, to Architecture or to The Society of Architects such services as in the opinion of the Council shall entitle them to that distinction, or whose Membership is considered by the Council to be desirable in the interests of Architecture or of the Society. Honorary Members shall be entitled to all the privileges of Membership except the right to vote. They shall not be required to contribute to the funds of the Society.

Qualification and privileges of Retired Members.

5.—Fellows and Members of not less than ten years' standing, who have retired from practice, and who are not under any liability to the Society, shall be eligible for transfer by the Council to the class of Retired Members provided they are not engaged in any occupation or business which, in the opinion of the Council ought not to be combined with that of an architect. If transferred to the retired list, they shall retain the privileges of membership while on the list, except the right to vote, and shall not be required to contribute to the funds of the Society.

Qualification of Fellows.

6.—FELLOWS shall be architects (*a*) who have attained the age of thirty years and who have been engaged as Principals for at least ten consecutive years in the practice of Architecture, and who are at the time of their election still so practising or (*b*) who are Fellows of the Royal Institute of British Architects.

Qualification of Members.

7.—MEMBERS shall be architects (*a*) who have attained the age of twenty-one years and have passed the qualifying examination of the Society or such other examination or examinations as the Council may from time to time approve in lieu thereof or (*b*) who have attained the age of thirty years and have been engaged as Principals for at least seven consecutive years or as Assistants or as Assistants and Principals for at least ten consecutive years in the practice of architecture or (*c*) who are Fellows or Associates of the Royal Institute of British Architects.

Qualification of Licentiates.

8.—LICENTIATES shall be persons who have attained the age of twenty-one years and are engaged professionally in architectural pursuits. They shall not be entitled to the right to vote except as hereinafter expressly mentioned in Articles 29 and 37.

Qualification of Students.

9.—STUDENTS shall be architectural students who at the time of their election shall have attained the age of sixteen years. They shall not be entitled to the right to vote.

Transfers.

10.—Members, Graduates and Students elected previous to May 1st, 1920, who possess or subsequently acquire the necessary qualifications may apply for transfer to a higher class, and if elected will be admitted without Entrance Fee. Members, Licentiates and Students elected after May 1st, 1920, have a similar privilege, but cannot exercise it within twelve months of the date of their admission to the Society.

Qualifying Examinations.

11.—Election to membership in any class shall be open only to Candidates approved by the Council, who have passed such a qualifying examination or such other test of their qualifications as the Council shall from time to time require.

Mode of Election.

Mode of Election.

12.—Fellows and Members shall be elected by the general body of Fellows and Members by show of hands as hereafter provided (unless a ballot shall be demanded previously in writing by three Fellows and three Members, when such ballot shall be conducted as the chairman of the meeting may determine) a majority of four-fifths of those present and voting being necessary for election.

13.—Honorary Members, Licentiates and Students shall be elected by the Council subject to such regulations as they may from time to time prescribe. Regulations.

14.—Candidates for election as Fellows, Members, Licentiates, or Students must fill in the form of nomination pertaining to the class into which they seek admission. The entrance fee (if any), and first year's subscription must accompany the nomination. The Council for the time being shall, however, have power to nominate any person they may think fit for election, and to dispense with any or all of the formalities required to be observed on an application for Fellowship, Membership, Licentiateship, or Studentship. Form of Nomination.

15.—Nomination forms, when filled up, shall be placed before the Council, who shall examine them and if found to be in order and in compliance with the Rules of the Society, they shall be signed by the Chairman of the Council Meeting and passed on for announcement. The Council shall, however, have power to make any further enquiries they may deem necessary as to a Candidate's eligibility for election, and may delay the announcement of a nomination for that purpose, or may decline to pass on for announcement any nomination, should they consider a candidate undesirable. Examination by Council.

16.—Nomination papers of Candidates for Fellowship and Membership approved by the Council, shall be open to the inspection of Fellows and Members on the evening of nomination and that of election. Inspection of Nomination Papers.

17.—Nominations for Fellowship and Membership are to be announced at Annual General, Special General, or Ordinary Meetings, and the candidates then nominated are to be submitted for election, at the succeeding Annual General, Special General, or Ordinary Meeting, provided such succeeding Meeting be not held on the same day. In the case of non-election no mention thereof is to be made in the minutes. The result of the election is to be communicated by the Secretary to each candidate. Election of members.

18.—Honorary Members, Retired Members, Fellows, Members, Licentiates and Students shall have the privilege of issuing invitations for one visitor at each Ordinary Meeting, but it shall be in the power of the Council to extend or suspend this privilege when occasion may arise, or it may be deemed expedient. The Council shall have the power to issue any invitations they may think proper. Invitations.

Abbreviated Forms to Designate membership.

19.—Honorary Members, Fellows, Members, and Licentiates having occasion for designation as belonging to the Society, use the following abbreviated forms, viz., Hon.M.S.A., F.S.Arc., M.S.A., or L.S.A., respectively.

Joint User.

20.—A member in any class acting jointly with or practising in partnership with any person not a member in any class of the Society, or under the title of a firm, shall not, after the joint names or after the title of the firm, use the initials descriptive of membership in the Society.

Certificate of Membership.

21.—Every Fellow, Member, and Licentiate, when elected shall be entitled to receive a Diploma Certificate of membership in respect of the year to which the first subscription paid by him applies, and shall, so long as he remains a Fellow, Member, or Licentiate, of the Society be entitled to hold the said Diploma Certificate, subject to an annual notification of its renewal by the Council for each subsequent financial year, upon payment in advance of his subscription in respect of that year.

Ownership of Certificate.

22.—Every Diploma Certificate issued to Fellows, Members, and Licentiates, shall be in such form as the Council may from time to time determine, and shall be the property of the Society, and in the event of cesser of membership shall be returned to the Council, and shall be recoverable on demand.

Suspension or Expulsion.

23.—(*a*) The Council may at any time subject to the following sub-sections of this Article reprimand, suspend or expel from the Society any Honorary Member, Retired Member, Fellow, Member, Licentiate or Student, who in the opinion of the Council (i) has contravened any Article or Regulation of the Society or (ii) has conducted himself in a manner derogatory to his Professional Character or (iii) is or has been since he became an Honorary Member, Retired Member, Fellow, Member, Licentiate, or Student of the Society engaged or financially involved in any occupation or business which in the opinion of the Council ought not to be carried on or conducted by an architect.

(*b*) Any person, whether an Honorary Member, Retired Member, Fellow, Member, Licentiate, or Student of the Society or not, may by writing addressed to the Secretary complain to the Council of any conduct appearing to him to call for the intervention of the Council under this Article, and the Secretary shall lay any such complaint before the Council on the first convenient opportunity, and, whether any such complaint shall have been made or not, the Secretary or any member of the Council may at any time on his own initiative report to the Council any conduct on the part of or imputation against any

Honorary Member, Retired Member, Fellow, Member, Licentiate or Student, of the Society, which shall by any means have come to his notice and which in his opinion ought to be taken into consideration by the Council.

(*c*) If after such informal preliminary enquiry (if any) as the Council may think fit to direct the Council shall decide to take cognizance of any such complaint or report as aforesaid the Secretary shall write a letter to the Honorary Member, Retired Member, Fellow, Member, Licentiate or Student whose conduct is in question (hereinafter referred to as " the Respondent ") informing him of the particulars of the complaint or report and inviting him to make a statement.

(*d*) If no statement is received from the Respondent within 21 days after the date of the Secretary's letter or within such extended time (if any) as the Council may allow and subject to any statement so received the Respondent shall be deemed to have admitted the facts as stated in the Secretary's letter.

(*e*) If after receiving any statement from the Respondent the Council consider any material facts to be in issue or to be sufficiently established for enabling them to decide upon their course of action the Council may decide the case or refer the facts for investigation to a Committee of Enquiry consisting of not less than 3 or more than 5 members of the Council who shall investigate the same and report thereon to the Council. The report of any such Committee shall for all purposes of this Article be binding upon the respondent. Any such Committee shall be subject to the provision of Article 36 of these Articles.

(*f*) The Committee may authorise the Secretary or any Fellow or Member of the Society to conduct the case against the Respondent at the enquiry and may if they shall think proper with the consent of the Council allow such sum as they may think proper for the expenses of the person authorised out of the funds of the Society.

(*g*) The Committee may accept as evidence upon the enquiry such written or oral statements and such documents as they may think proper including hearsay evidence and copies of or extracts from documents where the originals are not formally proved or accounted for subject to any comment as to the weight of reliability of such evidence, but each party shall so far as practicable have a reasonable opportunity before the hearing of the inquiry of inspecting and taking copies of any written statements or documents intended to be used by the other party and the Committee may exclude any written statements or documents in respect of which they shall be of opinion that this condition has not been sufficiently complied with. Any question as to whether the condition applies and has been sufficiently complied with shall be conclusively determined by the Committee. Each party shall deposit with the Secretary at the earliest practicable moment all written statements or documentary evidence intended to be tendered by him as evidence.

(*h*) The Committee shall as soon as they shall consider that sufficient time has been allowed for the receipt of evidence (whether original evidence or evidence in reply) fix and give to the Respondent and to the person (if any) authorised to prepare the case against the Respondent not less than 14 days' notice of a day time and place for the hearing and determination of the enquiry but the Committee may adjourn the enquiry from time to time as they may think expedient. The Respondent may upon giving not less than 7 days' notice to the Secretary be represented upon the enquiry by a solicitor or counsel and in that case the person (if any) authorised to conduct the case against the Respondent may be represented in like manner. The procedure at the enquiry and the acceptance or rejection of evidence thereat shall be at the absolute discretion of the Committee.

(*i*) The Committee or such of its members as have actually heard the enquiry or a majority of them shall make a report to the Council stating what in their opinion are the facts of the case so far as the same were referred to the Committee for enquiry.

(*j*) Upon receipt of the Respondent's original statement or on hearing the Report of the Committee the Council may if satisfied therewith order that no further action be taken in the matter but if the Council shall not be satisfied therewith or if no statement shall have been made by the Respondent the Council shall fix a date, time and place for a meeting to be held by their body for the purpose of determining what action shall be taken by them and not less that 14 days' written notice of such meeting shall be given to the Respondent by the Secretary. The Respondent may attend and be heard personally at the meeting or may submit through the Secretary any written considerations that he may think proper, but he shall not be permitted (except with the consent of the Council) to adduce any fresh evidence of facts or to question any facts admitted or deemed to have been admitted by him or stated in the Committee's report. At such meeting a reprimand may be given by a simple majority of the members of the Council present and voting upon the resolution for that purpose, but a resolution to suspend or expel the Respondent shall require a two-thirds majority of the members of the Council present at the meeting at the time when the resolution is put to the vote.

(*k*) The Secretary shall communicate the Council's decision to the Honorary Member, Retired Member, Fellow, Member, Licentiate, or Student, and the Council shall be at liberty to publish either in the Society's Journal or otherwise the name and address of any Honorary Member, Retired Member, Fellow, Member, Licentiate, or Student, who shall have been removed or suspended from the roll under this article.

(*l*) The Council shall have power subsequently to re-open the case on new evidence and rescind or vary their previous decision, and if the decision is rescinded or varied they shall give similar publicity to such rescission or variation

(*m*) Any Honorary Member, Retired Member, Fellow, Member, Licentiate, or Student who is convicted of felony or misdemeanour by any Court of competent jurisdiction shall *ipso facto* cease to be an Honorary Member, Retired Member, Fellow, Member, Licentiate, or Student, of the Society, as the case may be.

(*n*) The provisions of Nos. 82 to 84 of the Society's Articles of Association shall apply to any notices required to be given pursuant to this Article.

24.—If an Honorary Member, Retired Member, Fellow, Member, Licentiate, or Student of the Society has a receiving order made against him, or is adjudicated a bankrupt, suspends payment, or executes an assignment for the benefit of his creditors or enters into any composition or arrangement with his creditors generally, or if he is declared a lunatic, becomes of unsound mind, or a receiver in Lunacy is appointed of his estate, he shall cease to be such (unless the Council at their discretion shall otherwise decide), and thereupon the Council shall remove the name of such Honorary Member, Retired Member, Fellow, Member, Licentiate, or Student from the Register of the Society. Cessation.

25.—Upon the Council being satisfied of the death of any Honorary Member, Retired Member, Fellow, Member, Licentiate, or Student, his name shall be removed from the Register. Death.

26.—A member in any class, provided he is not under any liability to the Society, shall be entitled to resign his membership on giving notice in writing of his intention so to do, and such notice of resignation shall be accompanied by his Certificate of membership. Notice of Resignation.

27.—A notice of resignation received after the 31st October in any year shall not relieve a member from his liability to pay the annual subscription for the ensuing year. Liability.

Re-admission.

28.—Candidates for re-admission shall not be required to furnish particulars anterior to the date of their original election, but must, with this exception, comply with such other terms and conditions as the Council may think fit to require in each individual case.

Officers of the Society.

29.—The business of the Society shall be governed and managed by a Council consisting of a President, Vice-Presidents, the Past Presidents, Ordinary members of the Council, and one Delegate from each branch of the Society entitled to send a member to the Council, an Honorary Secretary, a Secretary, an Honorary Librarian and an Honorary Treasurer, all of whom, except the Secretary, shall be elected at a Special General Meeting of the Society to be held in October of each year. The year of Office shall be from the 1st November to the 31st October inclusive. The Vice-Presidents and Ordinary members of the Council shall consist of such a number of Fellows and Members and in such proportions as the By-laws may from time to time prescribe, and of two representatives of the Licentiates to be elected by the Fellows, Members, and Licentiates. The Licentiate representatives on the Council, who shall not exceed two, shall not be eligible to hold any other office thereon, and shall have the right of voting at Council and Committee meetings.

Hon. Auditor.

30.—The Council shall annually appoint a Fellow or Member who is not a member of the Council as Honorary Auditor, and may also from time to time appoint Foreign and Colonial Secretaries and Correspondents, Honorary Corresponding Members and Local Honorary Secretaries or other Officers or persons as may be deemed expedient or necessary for the proper carrying on of the work and management of the Society.

Auditor.

31.—The accounts of the Society shall be audited annually by a Chartered or Incorporated Accountant to be appointed annually by the Society in general meeting at such a remuneration as the meeting may decide.

The Auditor so appointed shall in conjunction with the Honorary Auditor appointed by the Council present their report at the Annual General Meeting in each year.

Quorum.

32.—Four members of the Council, three of whom shall be Fellows or Members, shall form a quorum at Council meetings : the Chairman at such meetings shall have an additional casting vote.

Resignation.

33.—A member of the Council may resign by sending in his resignation in writing to the Council, and upon the expiration of thirty days from the date of sending in such resignation or upon its earlier acceptance by the Council, he shall cease to be a member of the Council.

Cessation of Office.

34.—The office of a member of the Council will be vacated :—

(*a*) If he ceases to be a member in any Class of the Society or is suspended or excluded for any period from the Society.

(*b*) If he is absent from more than three consecutive Council meetings without the consent of the Council in writing.

(*c*) If at a meeting of the Council specially convened for that purpose, at which not less than twelve members of the Council are present, a resolution is passed by a majority of not less than three-fourths of those present and voting declaring the office of such member vacated.

Notices.

35.—At least four days' notice of a meeting of the Council or not less than twenty-four hours' notice in a case of emergency, shall be sent to each member of the Council to the address furnished by him to the Secretary for this purpose. The non-receipt of notice by any member shall not invalidate the proceedings of any meeting.

Committees of Council.

36.—The Council shall at any time have power to constitute and form temporary or standing Committees for carrying out specific work connected with the Society, and delegate to such Committees such powers as may be deemed expedient by the Council appointing the same, which powers may be enlarged or curtailed by any Council in office at any time, and the members of such Committees may consist of Honorary Members, Retired Members, Fellows, Members or Licentiates of the Society, whether they be members of the Council or not, provided that at least three-fourths of the members of any such Committee shall be members of the Council. Standing Committees shall be appointed at the first Council Meeting in each session, and the members thereof shall remain in office until their successors are appointed at a subsequent similar meeting. Each Committee, at its first meeting in each session, shall appoint a Chairman from among its members. The Council shall at any time have power to discharge any such standing or other Committee, if in the opinion of the Council the work for which it was appointed shall have been completed, or no useful end can be attained by the continuance of such Committee. Two members of any such Committee shall form a quorum. A list of members of standing Committees shall be published together with a list of members of the Society. The President and Vice-Presidents shall be *ex-officio* members of all Committees.

Election.

37.—The President, Vice-Presidents, Council and Officers, except the Secretary, shall be elected annually by the Fellows and Members, by balloting papers, but the Licentiate members of the Council shall be elected annually by the Fellows, Members and Licentiates by balloting papers.

Management of the Society.

38.—The Council shall have the sole management of the funds, and the superintendence of the Society.

By-laws

39.—The Council may from time to time make, repeal and amend all such By-laws (not inconsistent with these Articles) as they shall think expedient for the management and well-being of the Society, and may thereby impose reasonable fines not exceeding Ten Guineas for any breach of such By-laws. Any Honorary Member, Retired Member, Fellow, Member, Licentiate, or Student, who has incurred a fine, shall be notified thereof by the Secretary, and required to pay the same forthwith, and in default of his paying the same within one calendar month of the date of such notice, he shall be deemed to have contravened a Regulation of the Society, and shall accordingly be liable to reprimand, suspension or expulsion as in such case provided. All By-laws made by the Council under this Article shall be binding upon all Honorary Members, Retired Members, Fellows, Members, Licentiates, or Students, until repealed by the Council or set aside by a Resolution of a General Meeting of the Society.

Chairman.

40.—In the absence of the President from any Annual General, Special General, Ordinary, Extraordinary General, or Council Meeting, one of the Vice-Presidents shall take the chair, or, in their absence, one of the Past-Presidents, or failing them also, a member of the Council being a Fellow or Member.

Selection of Subject for Discussion.

41.—The Council shall select the subjects and papers to be read and discussed at the Ordinary Meetings. Honorary Members, Fellows, Members or Licentiates, wishing to read papers, or to have a particular paper discussed, must notify the same to the Council.

Publication of Paper

42.—Honorary Members, Fellows, Members or Licentiates proposing to read a paper, shall forward a copy of the same, written in the third person, to the Secretary, for examination by the Council, who will, if the paper be accepted, arrange a day for reading the same. The Society shall have the right of publishing the paper.

Special Meeting of Council.

43.—A Special Meeting of the Council shall be called by the Secretary within seven days of the receipt of a requisition of five of its members, failing which, such five members shall have power to call such Special Meeting.

Retirement of Council.

44.—The President, Vice-Presidents, Honorary Treasurer, Honorary Secretary, Honorary Librarian and such number of Ordinary Members of the Council as the By-laws may from time to time prescribe shall retire annually and no Ordinary Member of the Council shall hold office as such for more than three years in succession, and shall not be eligible for re-election as such unless one year shall have elapsed since the expiry of such period of three years.

List of New Officers.

45.—Not later than 28 days' previous to the holding of a Special General Meeting in October the Council shall send to each Fellow, Member, and Licentiate of the Society entitled to vote, a list of duly qualified persons whom they nominate for vacancies in the Office of President, Vice-Presidents, Honorary Secretary, Honorary Treasurer, Honorary Librarian and Ordinary members of the Council. The list of persons so nominated for the office of Ordinary members of the Council shall contain at least two names in excess of the vacancies on the Council in the London and Country divisions respectively.

Members wishing to be elected on Council.

46.—After the issue of the Council's list, any five Fellows, Members or Licentiates qualified to vote may nominate in writing any other duly qualified person to fill any vacancy subject to their having previously obtained the consent in writing of such person to accept office if elected. The nomination paper accompanied by such consent must be delivered to the Secretary not later than the first day of October and no nomination will be valid if the nominee or any of the nominators are under any liability to the Society. Licentiates as such shall not be entitled to nominate candidates other than Licentiate Candidates for vacancies on the Licentiate representation on the Council.

Election of Council.

47.—After the first day of October a complete balloting list shall be prepared of those nominated for the Officers and the Council, except the Permanent Officers, for the succeeding year, and the elections shall be conducted as follows :—

Scrutineers.

(i) The President, or failing him, one of the Vice-Presidents, shall from among the Fellows and Members of the Society other than the Candidates forthwith appoint not less than four scrutineers, three of whom shall form a quorum.

Vacancies.

(ii) If by death or refusal or incapacity to act, the number of the scrutineers be reduced below four, the President, or failing him, one of the Vice-Presidents shall appoint Fellows or Members to fill the vacancies.

Issuing of Voting Papers.

(iii) The secretary shall at least seven days before the Special General Meeting forward a voting paper to every Fellow, Member and Licentiate who is not under any liability to the Society, and the voting papers shall be in such form as the Council may from time to time direct.

Delivery of Voting Papers.

(iv) The voting papers duly sealed or otherwise fastened up in accordance with the directions printed thereon, shall be delivered, or returned by post prepaid, to the Secretary at least two clear days before the date fixed for the Special General Meeting, and the Secretary shall deliver them unopened to the Scrutineers by whom they shall be opened and examined.

Custody of Voting Papers

(v) As soon as the voting papers have been examined and the results of the election ascertained by the Scrutineers, the voting papers shall be closed up by them and shall be retained for one month after the election when they shall be destroyed.

Form of Scrutineers' Report.

(vi) The Scrutineers shall make and sign a report in which they shall state the total number of voting papers received, the number rejected and the grounds for rejection, the total number of votes in favour of each candidate and the names of those who are duly elected, and shall hand such report to the Secretary not later than the day before the Special General Meeting.

Equality of Votes.

(vii) The Scrutineers' report shall be conclusive as to the result of the election notwithstanding any irregularity or informality. Provided always that if there be an equality of votes the Special General Meeting may give such casting vote or votes as may be necessary to remove the equality and complete the election. Such casting vote or votes shall be given by a show of hands and no poll shall be demanded thereon.

Permanent Officers.

48.—The Permanent Officers shall consist of a Secretary and such other officers as the Council may from time to time appoint, and they shall be paid such salaries as the Council may from time to time determine.

Pensions

49.—The Council may, with the consent of the Fellows and Members assembled at an Annual or Special General Meeting, make such provision for pensioning retired officers and servants, whether by agreement at the time of appointment or employment, or otherwise as to the Council may seem just.

The Secretary.

50.—The Secretary shall perform such duties as shall be assigned to him by the Council, to whom he shall be responsible for the management and conduct of the Society's establishment and executive business.

Custody of Funds.

51.—All monies received by the Society shall be paid into the Society's account at its Bankers, and all monies in excess of such current balance as the Council may from time to time require to be kept in hand shall be placed on Deposit at the Bank or invested in such securities as for the time being may be authorized for the investment of trust funds as shall be approved of and directed by the Council. The Council may from time to time realize or vary such securities.

Payments.

52.—Every sum of money payable on account of the Society exceeding £5 shall only be paid by Cheque signed by the Honorary Treasurer and two other Members of the Council and countersigned by the Secretary.

The Entrance Fees payable on admission and the Annual Subscriptions to the various classes shall be as follows, but Fellows and Associates of the Royal Institute of British Architects, on being elected to any class of membership, shall not be charged Entrance Fees, and Members, Licentiates and Students of the Society, on being transferred to a higher class of membership, shall not be charged Entrance Fees.

Class.	Entrance Fee.	Annual Subscription.
Fellows	£4 4s. 0.	£4 4s. 0.
Members	3 3s. 0.	3 3s. 0.
Licentiates	2 2s. 0.	2 2s. 0.
Students	1 1s. 0.	1 1s. 0.

Receipts.

53.—The receipt of the Secretary or other person appointed by the Council shall be a good and complete discharge for any monies paid to the Society.

Vacancy in Council.

54.—The Council shall fill up any vacancy that may occur in the Council or amongst the Officers of the Society between the Special General Meetings. The members of Council and Officers so appointed shall thereupon be in the same position as if elected at the previous Special General Meeting.

Subscriptions, etc.

Annual Subscription and Registration (*entrance*) Fees.

55.—The first annual subscription and entrance fee (if any) shall in every case be payable on admission and subsequent subscriptions shall be payable in advance on the first day of November in each year. Provided that in the case of persons elected during August, September, or October in any year, they shall not be required to pay any further subscription till the November of the following year.

Examination Fees.

56.—The amounts of any fees payable by candidates for the Examinations or other purposes shall be determined by the Council from time to time.

Subscription in Arrear.

57.—Fellows, Members, Licentiates and Students whose Annual Subscriptions are in arrear for six calendar months may, after one month's notice from the Secretary, be struck off the Register of the Society by the Council, but shall be still liable for the amount due. The Council may, at their discretion, post the names of any such defaulting Fellows, Members, Licentiates or Students in the Society's meeting room, or in the meeting room of any Branch or of any Society in union or alliance, or in the Society's Journal or in any other publication.

Power to Reinstate.

58.—In the event of any Fellow, Member, Licentiate or Student being removed from the Register of the Society in consequence of the non-payment of subscriptions, the Council shall have power to reinstate such person on payment of all arrears of subscriptions due and of any costs incurred by the Society in connection therewith.

Power to Waive Subscriptions.

59.—The Council shall have power to waive the subscriptions from time to time of any Fellow, Member, Licentiate or Student for any cause deemed by the Council to be sufficient.

Meetings of the Society.

Meetings.

60.—The Meetings of the Society shall be held at such times and places as the Council may appoint, which meetings shall, with the exception of the Annual General and Special General Meetings, be called Ordinary Meetings, all other Meetings of the Society shall be called Extraordinary General Meetings.

Quorum.

61.—Ten Fellows and Members shall form a quorum at Annual General, Ordinary, Special General and Extraordinary General Meetings.

Notice of Meetings.

62.—At the commencement of each Session a card shall be sent to each Honorary Member, Retired Member, Fellow, Member, Licentiate and Student, giving the dates of all Ordinary Meetings to be held during the session.

63.—An Extraordinary General Meeting of the Society shall be called by the Council or on the requisition of eight Fellows or Members, within 28 days of the receipt of such requisition, which shall embody, in writing, the resolution or resolutions to be proposed by them at such meeting ; and such resolution or resolutions shall be sent to the Fellows and Members, fourteen clear days before the date of such meeting, together with a written or printed notification of the time and place of any such proposed meeting. Service on the Secretary of the Society, either personally or by prepaid registered letter sent by post addressed to him at the registered office of the Society, shall be sufficient service of such requisition. In case the Council for fourteen days after the service of such requisition fail to convene such Extraordinary General Meeting, the requisitionists may themselves convene such meeting, to be held within six weeks after the service of the requisition as aforesaid, 14 days' notice specifying the place, day, and hour of such meeting being given and setting out the resolution or resolutions which are to be submitted to such meeting.

Special General Meetings.

64.—The Chairman of all meetings shall have the power of directing the manner of discussion and his decision shall be final.

Management of Discussion.

65.—There shall be an Annual General Meeting held within three calendar months of the commencement of each Session for the consideration of the Council's Annual Report and Balance Sheet. Fourteen days' notice of such Meeting shall be sent to every Fellow and Member.

Annual General Meeting.

66.—The proceedings of each meeting shall be commenced by reading the Minutes of the one preceding, and the names of the persons nominated for election at the succeeding meeting.

Order of Business.

67.—Certificates and other official documents of the Society shall be under seal, such seal to be kept by the Secretary, and to be used only on the authority of the Council.

Certificates and other Official Documents to be under Seal.

Making or Altering Articles of Association.

68.—The whole or any of the Articles of Association may be rescinded, altered or varied, and other regulations in addition to or substituted for these regulations may be made by a special resolution, within the meaning of Section 69 of the Companies (Consolidation) Act, 1908, duly passed—that is to say whenever a resolution has been passed by a majority of not less than three-

Making, Altering and Rescinding Articles.

fourths of such Fellows or Members of the Society for the time being entitled according to the regulations of the Society to vote, as may be present in person or by proxy, at any Extraordinary General Meeting, of which notice specifying the intention to propose such resolution as a special resolution shall have been duly given, and such resolution has been confirmed by a majority of such Fellows or Members for the time being entitled according to the regulations of the Society to vote, as may be present in person or by proxy, at a subsequent Extraordinary General Meeting of which notice has been duly given, and held after an interval of not less than 14 days, nor more than one month from the date of the meeting at which such resolution was first passed. Unless a poll is demanded by at least five persons being Fellows or Members, a declaration of the Chairman that the resolution has been carried shall be deemed conclusive evidence of the fact, without proof of the number or proportion of the votes recorded in favour of or against the same.

Notice of Meeting held under Article 68

69.—Notice of any meeting shall, for the purpose of Article 68 be deemed to be duly given when a written or printed report of the proposed alterations or additions to these articles shall have been delivered or sent by prepaid post to every Fellow and Member, together with a written or printed notification of the time and place of any such proposed meeting, at least fourteen days previous to the date of the holding of such meeting. Whenever it is intended to pass a Special Resolution, the two meetings may be convened by one and the same notice, and it shall be no objection that the notice only convenes the second meeting contingently on the Resolution being passed by the requisite majority at the first meeting.

Omission to give Notice.

70.—The accidental omission to give any such notice to any of the members shall not invalidate any Resolution passed at any such meeting.

Votes of Members.

71.—Each Fellow and each Member shall have one vote.

Proxies.

72.—Votes may be given either personally or by proxy, except where otherwise provided. The instrument appointing the proxy, properly stamped, shall be in writing under the hand of the appointor or his Attorney, and shall be deposited at the registered office of the Society not less than 48 hours before the meeting at which it is to be used. No person shall be appointed a proxy who is not a Fellow or Member of the Society.

Disqualification of Vote.

73.—A Fellow or Member shall not be entitled to be present or vote at any meetings on any question, either personally or by proxy, or as proxy for another Fellow or Member at any meeting, or upon any poll, or to be reckoned in a quorum, whilst he is under any liability to the Society.

Branches of the Society.

74.—Branches of the Society may be formed at any time and for any place where deemed expedient by the Council for the time being, and each shall be named after the country, colony, dependency, district or place in which it is formed, and where it shall have its permanent head-quarters.

Branches.

75.—Branches of the Society shall consist of Honorary Members, Retired Members, Fellows, Members, Licentiates and Students of the Society only, and no Branch shall be formed or recognised by the Council unless it consists at the outset of ten persons at least, and should the membership of any such Branch fall below such number, the Council shall have power, by resolution at any of its meetings, to declare such Branch to have ceased to exist, which resolution shall have the effect of putting an end to such Branch absolutely.

Limit of Branch Membership.

76.—No Branch of the Society shall be formed except with the approval of the Council for the time being, expressed by resolution to that effect on the written application of five Fellows or Members of the Society at least, who propose to promote such Branch, and no such approval shall be given except after the second Ordinary Meeting of the Society, held after any Ordinary Meeting of the Society at which public notification of the intention of the Council so to do has been given by the Council.

Method of Formation of Branches.

77.—Any Fellow or Member of the Society shall be at liberty at any such meeting of the Society to lay before such meeting any objections he may have against the proposed formation of any Branch, and move a resolution to the effect that such Branch be not formed, and the Council shall abide by the result of such motion. No renewal of the proposal to form a Branch shall be made within six months of the negativing of such proposal as aforesaid.

Objection to Formation of Branch.

78.—Subject to the provisions of these Articles of Association the Council of the Society shall have the sole power to frame the Rules or By-laws for the formation and working of any proposed Branch, and such Branch shall, subject to confirmation by the Council, after announcement at an Ordinary Meeting of the Society, have power to alter, vary, rescind, or add to any of such Rules or By-laws.

Framing of Branch Rules and By-laws.

79.—No Branch Rules or By-laws shall be valid, even after approval by the Council, if in the opinion of the Society, expressed by resolution passed at an Ordinary Meeting, such Rule or By-law contravenes any fundamental law of the Society.

Not to contravene any Fundamental Law of the Society

Branches to pay own Expenses.

80.—Each Branch shall pay its own expenses, and no Branch shall be deemed, for any purpose whatsoever the agent of the Society, or have power in any way to bind the Society in any way whatever.

Grants to Branches from the Society.

81.—Each Branch shall on the first day of November in every year of its existence, be entitled to have forwarded to it from the Society a yearly allowance, amounting to a proportion of one-half of the annual subscriptions actually received during the preceding twelve months by the Society, from such Fellows, Members, Licentiates and Students of the Society, who are also members of such Branch ; and further than this the Society shall be under no liability to any Branch.

Notices.

Service of Notices.

82.—A notice may be served by the Society upon any Honorary Member, Retired Member, Fellow, Member, Licentiate or Student, either personally, or by sending it through the post in a prepaid letter addressed to such member's registered or last known place of address.

Notices—when deemed to have been served.

83.—Any notices if served by post shall be deemed to have been effectively served at the latest within 12 hours after the same shall have been posted, and in proving such service it shall be sufficient to prove that the letter containing the notice was properly addressed and posted.

84.—As regards those members in any class of the Society in the United Kingdom, who have no registered address, a notice posted up in the Office of the Society shall be deemed to be well served on them at the expiration of twelve hours after it is so posted up.

" Thoughts on Economics."—Errata.

Our attention has been drawn to the following corrections in Sir Ambrose Poynter's paper, which appeared in the April number of the JOURNAL :—Page 206, line 19 from bottom, for " painful Trade Union " read " powerful Trade Union." Page 208, line 26, for " so well " read " so ill." Page 209, line 12 from bottom, for " suspension of disturbance " read " suspension or disturbance."

Notes from the Minutes:

R.I.B.A. At a meeting of the Council held at the Architects' Club, at Olympia, on April 15th, it was decided to accept an invitation from the R.I.B.A. Council to appoint representatives on the Committee proposed to be set up by the R.I.B.A. to discuss the questions of Unification and Registration. The Society's representatives will be the President, Mr. Edwin J. Sadgrove; the Vice-presidents, Sir Charles T. Ruthen and Mr. A. Burnett Brown; the Hon. Secretary, Mr. Noel D. Sheffield; the Hon. Treasurer, Mr. George H. Paine; Mr. E. J. Partridge, Past Vice-president and Member of Council; and the Secretary, Mr. C. McArthur Butler.

NEW FORMS OF MEMBERSHIP, ETC. The alterations in the Articles of Association having been confirmed, the forms of application for transfer and admission to the several classes of membership will shortly be issued. A pamphlet setting forth the aims and objects of the Society, and particulars of membership, etc., and containing a preliminary form of application may be obtained on application to the Society.

FIRST ATELIER. SOUS-PATRON. On the recommendation of the Beaux Arts Committee, the Council of the Society has appointed Mr. de Soissons to be Sous-Patron of the First Atelier in succession to M. J. P. Chaures, who has been successful in winning several important competitions in France, and is engaged in their realisation. The Atelier premises at 28, Bedford Square, have been completed, and are about to be opened.

BUILDING TRADES' EXHIBITION, OLYMPIA. The "Architects' Club" organised by the Society at the Building Exhibition at Olympia in April proved a great success. The Club was visited by H.R.H. Prince Albert, K.G., by H.R.H. Princess Louise, Duchess of Argyll, and by other distinguished personages.

The public luncheon organised by the Society in the Pillar Hall, at Olympia, on April 22nd, was attended by some two hundred representatives of the building industry and a number of distinguished guests, and a series of Conferences were held in the Small Conference Hall. A detailed note of the proceedings appears elsewhere in this issue.

ECOLE DES BEAUX ARTS. WAR MEMORIAL. The Society has given a donation of 1,000 francs to the fund for setting up a War Memorial to the memory of the students of the Ecole des Beaux Arts, Paris, who fell in the War.

INTER-ALLIED HOUSING CONGRESS. The National Housing and Town Planning Council propose to hold an Inter-Allied Housing Congress in London in June, to which the Society has been invited to send delegates. The President, Mr. E. J. Sadgrove (or his nominee) and the Senior Vice-president, Sir Charles T. Ruthen, have been appointed by the Council to represent the Society. Since then, the President has been nominated by the N.H.T.P.C. as a Vice-president of the Congress

Victory Scholarship Fund.

There is still a large amount to be raised in order to provide a sufficient sum for investment for the purposes of the Scholarship, which is to provide a prize of £100 annually to be competed for under the conditions laid down elsewhere in this issue. It is hoped that through the generosity of Members the deficiency will be made good. Donations should be sent to the Secretary of The Society of Architects, 28, Bedford Square, W.C.1.

For the Information of Members.

The Library. Gifts of books on Architecture and allied subjects, and Donations to the Library Fund are invited. Books from the technical circulating library are sent through the post, or may be obtained on loan personally by Members on application. The Rules relating to the use of the Library are published in the Year Book, and a copy of the Catalogue may be obtained (free of charge) from the Secretary.

NOTE. The Library is closed for the time being, pending the completion of alterations and decorations to the premises. Notice of re-opening will be given in these columns in due course.

Book Reviews. The Secretary will be glad to receive the names of Members who will undertake to notice books sent for review. They are asked to mention the subject with which they would prefer to deal.

Professional Appointments. Members seeking appointments or requiring Assistants should notify the Secretary of their requirements so that they may be entered on the Register. There is no charge.

Subscriptions. Annual subscriptions are due and payable in advance on November 1st of each year, and Members are invited to make use of the Bankers' Order Form method of payment where possible. A form for this purpose may be obtained from the Secretary.

The Examinations. The qualifying entrance examination for Membership is held in April and October. A copy of the syllabus may be obtained from the Secretary. The Graduateship examination has been discontinued in view of the new proposal for grading the Membership.

Awards and Scholarships. Particulars of the Victory Scholarship, the Travelling Studentship, the Architectural Scholarship, and other awards will be announced in the JOURNAL from time to time.

Professional Advice and Defence. The rules and regulations for legal assistance to, and professional defence of Members of the Society are set out in the Year Book together with the Society's Code of Professional Ethics.

Publicity. The Society has a special department for securing publicity in the Press and elsewhere relating to matters in which the Society and its Members are concerned. Members can greatly assist the work of the Society by keeping the Secretary supplied with cuttings from local newspapers or other information of interest to architects in general and Members of the Society in particular.

Beaux Arts Atelier. As soon as the extensions to the Society's premises are completed the Members will be informed of the advantages to be derived from entering the Atelier and the qualifications necessary for doing so.

Changes of Address. Members are requested to notify the Secretary at once of any temporary or permanent changes in their address so that the Registers may be kept up-to-date and the difficulties avoided which arise when communications to Members are returned through the post.

Masonic Lodge. The Lodge meets on the second Wednesday in November, January, March and May, at the Holborn Restaurant. The present Master is Major T. Stewart Inglis, D.S.O., R.F.A., and the Secretary is Mr. C. McArthur Butler. Visiting "members" from other Lodges are always welcome.

Communications. All communications should be addressed to

**THE SECRETARY OF THE SOCIETY OF ARCHITECTS, 28, BEDFORD SQUARE,
LONDON, W.C.1.**
Telegrams "Crypt," Westcent, London. Telephone "Museum" 942.

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The Society is not, as a body, responsible for the opinions expressed by individual authors and speakers.

Nottingham and Derby Architectural Society.

BUILDERS AND OPERATIVES ON THE HOUSING QUESTION.

By invitation of the Council of the Nottingham and Derby Architectural Society, and at their Rooms, a second Conference with the Councils of the Master Builders and Operatives was held on April 13th.

The President of the Architectural Society, Mr. Watkins, occupied the chair. Mr. Bosworth, President ; Messrs. Cree and Gilbert, Vice-Presidents and their Council represented the Master Builders' Federation. The delegates of the Operatives included Mr. Councillor Green, President of the Nottingham Branch National Federation Building Trades' Operatives' Amalgamated Union, Mr. Guy, Secretary and a representative of the bricklayers, plasterers, stonemasons, plumbers, machinists, joiners and slaters.

In welcoming the delegates, Mr. Watkins stated that the Nottingham Conference held last year was unique, and the first to be held in the Country, and was very favourably received by the building world. Other districts followed and the outcome was a similar Conference convened by the Royal Institute of British Architects in London, at which a Building Industries' Consultative Board of all sections was formed which was still in existence.

He stated that owing to the decrease in numbers of operatives in the building industry, owing to losses due to the war and stoppage of normal apprenticeship, there was a serious shortage of labour at the present time, and he asked the Operatives that while protecting themselves against injustice, they should carefully consider the necessity for bringing in ex-Service men after short training, commonly referred to as dilution. With shorter hours, work was not being completed quickly enough, and this delay meant loss output of industries, which shortage kept up prices. They were not yet catching up arrears of work caused by Government stoppage during the war.

He referred to the present high cost of building and the difficulty of obtaining firm prices in tenders which deterred many people from building and extending their premises and invited the opinions of those present.

In conclusion he stated that in other large cities mechanical diggers and other labour helping plant were used to expedite the work, and suggested that the Master Builders might combine to purchase such plant to be hired out among themselves.

Operatives Against Dilution.

The opinion of the Operatives was strongly against dilution, although it was stated that the number of men in the building industry was about 150 to 200 thousand below pre-war total. Several delegates stated that 3 years was not sufficient to train any craftsman, that it would therefore bring in a number of unskilled workmen, and that when work slackened it would increase the evils of unemployment, although authorities were quoted that it would take at least 10 years for the building trade to become normal, and Mr. Watkins informed the meeting that the Architectural profession had assisted ex-Service men into *their* profession and relaxed examinations and periods of training as they did not fear any adverse results to themselves.

Limited Output Theory Denied.

The President of the Operatives said that while he constantly advocated that wages should be sufficient for every man to live up to a reasonable standard, and hours of relaxation enough for him to enjoy the life God gave him, he had always urged that a man should put his heart into his work and do his best, in fact, do an honest days' work, and he hoped the idea that the Trades Unions limited output was exploded for ever, because it never existed.

The Master Builders said they would consider Mr. Watkins' suggestion as to Plant, but the difficulty would be to obtain it at present. They pointed out that it was impossible for them to quote firm prices as long as the manufacturers insisted upon charging the price to them at the date of delivery and not at the date of order, due as they claimed to the uncertainty of the labour market. They also pointed out that clients who built were protecting themselves by similar means in their own businesses.

Luxury Building.

Discussion took place with reference to the fresh restrictions on buildings, and while admitting the necessity for houses it was felt that it was only common sense that industrial buildings, which together with all other buildings had been restricted, should now be allowed to proceed in order to increase production and help to provide employment in other industries; and they felt that all buildings, with the exception of Cinemas and other real luxury buildings, should not be interfered with.

The Government type of house and the cutting down of the Architects' original designs was severely criticised.

A number of helpful suggestions were made in a very friendly spirit and Mr. Watkins was cordially thanked for his kindly and able chairmanship, and the Council of the Architectural Society for convening the Conference.

* Gas Heating in Relation to Economy in Building.

By Mr. H. H. Creasey, of the British Commercial Gas Association.

I must first ask the Council of The Society of Architects to accept the sincere thanks of the British Commercial Gas Association for giving us such an excellent opportunity of setting before them—and through them the housing authorities and eventually the general public—one of the special improvements that the gas industry claims it can effect in connection with housing schemes. An improvement, be it noted, which (1) will add to the comfort of the homes from the view points of saving of labour, reduction in dust and dirt, increased floor space and breathing space in the rooms, (2) will ensure the utmost economy in fuel, primarily to the individual and ultimately to the Nation ; and, in addition, (3) will have, at least, some effect in securing " Smoke Abatement," thus leading us still further on the road towards brighter towns and cities.

All this can be achieved, not by increasing the cost of building, but by actually effecting a substantial economy in this direction.

The use of gas for heating has passed through many stages and vicissitudes since it was first adopted in a very experimental and limited fashion many years ago. Errors of construction, lack of both economic and hygienic efficiency in appliances, and the consequent prejudices against the use of gas have all had to be either improved, overcome or lived down, in order to arrive at the happy position in which we find ourselves to-day, when gas heating is accepted by scientists, including medical officers of health, and other leading medical authorities, as being perfectly hygienic inside the home, while tending to improve atmospheric conditions outdoors, owing to the smokeless character of the products of combustion arising from its use. Some of its heartiest advocates may now be found in the ranks of the Medical and Nursing professions, Hospital Authorities, and experts on smoke abatement.

Gas heating, like almost everything else, has been steadily improving with the march of progress in science and practical experience, but all the changes that have occurred until recent years have been by way of improvements in the design, construction, and installation of the *appliances themselves*, such as the following :—

> " Simpler and more artistic designs calculated to harmonise the appliances with any period scheme of decoration and furnishing."
> " No convected heat—or dust trap—chambers."
> " Upright pillar radiants instead of piled up ball fuel."
> " Greater radiant efficiency of fire-bricks and fuel."
> " Flue outlets capable of removing all the products of combustion, even if no flue pipe at all were attached, to the flue outlet, or, at the most, one two feet length."
> " Duplex taps."

None of these, however, could be looked upon as what might be called an outstanding revolution in the *application* of gas for heating purposes, as distinct from the appliances used. I think I can claim, however, that the present period *is* a turning point in the history of gas heating, and that what might almost be called a revolution is beginning to take place.

The first reference to gas heating I know of appeared in Webster's Encyclopedia of Domestic Economy, dated 1844, as follows :—

> "Among modern improvements may be enumerated the application of coal gas as a fuel. Although it is chiefly employed in lumination, it is likewise on some occasions successfully used for giving heat, and has already been adverted to in Book 2, ' On Warming a Building.' "

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* *A paper read before The Society of Architects at the Building Exhibition, Olympia, April 23rd,* 1920

It is a far cry from 1844 to 1920, but, in my opinion, no period in these 76 years has witnessed a greater or more important step in the use of gas instead of solid fuel for heating houses, than the one in which we are now living.

The revolution that has now commenced has little bearing upon the appliances themselves, but is connected with the construction of the buildings in which they are to be used. I will now set out in logical order what has led up to this possibility, namely, that of the erection of Gas Fire or Gas Grate (instead of Coal Grate) Houses, and will then show how the gas grates will be applied to such houses.

As far as I know or can trace, nothing public or noticeable occurred which might be considered to have a bearing on the matter till the year 1911. Until that date, however artistic the design of the gas fire might be, its effect was, at least to an extent, spoiled by the fact that it was fixed practically always in front of a coal fireplace, with the design of which it probably clashed. However, the gas industry made the best of what was at times an artistically bad job, though an excellent one as regards heating efficiency.

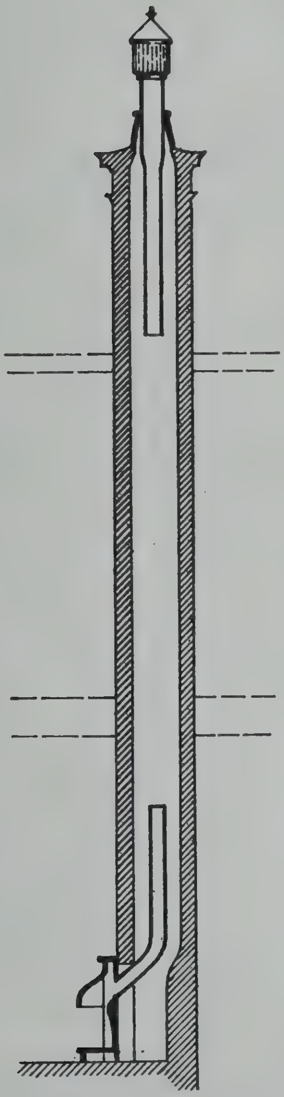
About the beginning of 1912, however, Messrs. John Wright and Company introduced what they called the "Built-in" Gas Grate (note the name "Gas Grate," not Gas Fire) and advocated more strongly what many of us had already begun to advocate, namely, that when constructing houses, builders, wherever possible or expedient, particularly for rooms intermittently heated, should *not* provide a coal grate in front of which a gas fire would probably, sooner or later, be stood, to the detriment of the appearance of both—a plan involving, moreover, the wasteful principle of installing two pieces of apparatus for the same purpose, one of which would be subsequently unused ; but should provide instead a suitable gas grate in place of the coal grate.

It is perfectly obvious that, as the use of gas for heating could be approved from so many other viewpoints, such a suggestion could not possibly be opposed, and we, therefore, had a definite new principle advocated which was adopted in quite a number of instances.

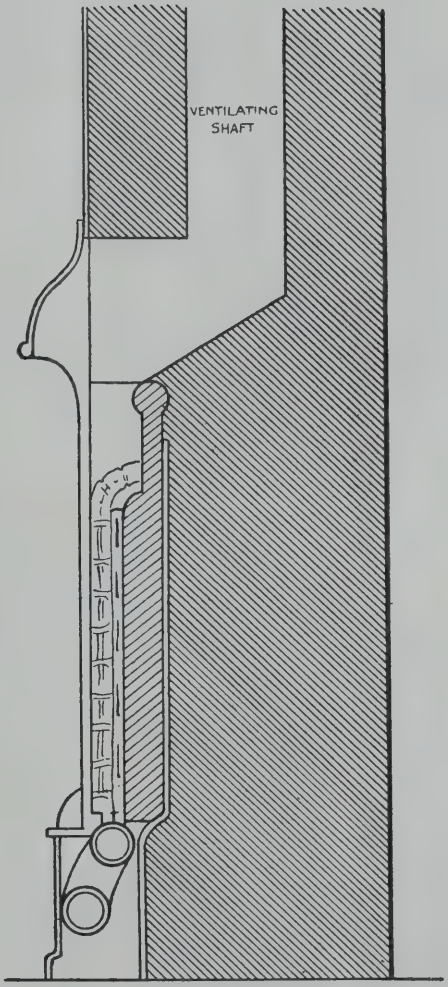
Two such cases dealt with by myself were the town house of Mr. Leonard Stokes, where he had " built-in " gas grates in every room except one, in which he had a coal fire, and St. Stephen's Club on the Embankment, where, after a fire had taken place and the premises were reconstructed, " built-in " gas grates were installed instead of coal grates in all the members' bedrooms.

Several gas stove makers put similar fires on the market, but while all of them were " getting warm," they did not get " right there," as the Americans say. They were all—and so were Gas Companies Representatives—endeavouring either to make the gas fire look as well as possible against a coal grate, or, as an alternative, to persuade the builders here and there to fit a gas grate to the opening and flue usually prepared for a coal grate.

Now, how did the idea start, and where has it taken us ? As far as I am concerned, I first started thinking on lines which gradually developed when curing an obstinate case of down-draught. In such cases, when necessary, we close in the fire-place at the bottom with sheet iron, asbestone, or some other suitable material, and put one or more lengths of flue on the gas fire to get well up into the brick chimney, and then attack the other end by going on the roof and reducing the 8 in. chimney pot by fixing a cap over it, which cap has a flue pipe through it of a similar area to that used on the fire below ; usually we get a 4 in. or 5 in. flue through the gap. This is then taken, say, 2 feet downwards through the chimney pot, and, say, 2 feet upwards above the chimney pot, with either a plain cone, a Brassington Cowl, or,



A method of curing down-draught with a gas fire.



Gas fire recessed in 9 inch wall with economy flue.

in extreme cases, a revolving ventilating cowl on top of all. This has the effect of reducing the flue area at the bottom to, say, $13\frac{1}{2}$ square inches, and the top to the same, but the brick flue area between is still, say, 9 in. by 9 in.—81 square inches.

The reasons why we adopt this absolutely sound principle, are :—

1. The smaller flue is all that is necessary to remove the products of combustion from the gas fire.
2. Reducing the flue area, reduces the volume and power of the downward current of cold air (otherwise, "the down-draught") and makes it more easily possible for the warm ascending gases to overcome this tendency.

In a particular case I have in mind, the down-draught was so bad that we attacked the job from the roof, and fitted together two foot lengths of flue pipe, one at a time, and lowered the flue through the chimney pot until it reached far enough down for it to be got at (with some difficulty, of course) from below, when the flue outlet of the gas fire was joined up to it by some more flue pipe of the same size. In that case you see we actually went a step further than usual, and reduced the whole of the flue area to the correct size for the gas fire.

When watching this job being carried out, the thought flashed through my mind : Why on earth cannot we have a gas fire flue of the right area always built—and properly built—to accommodate the gas fire in rooms intermittently heated ? We do not need the large flue area that a coal fire does, because our products are vaporous and do not contain the solid matter that coal smoke does, and our flue area always remains the same size and does not become reduced by soot. Why, therefore, should not the flue be built right at first ? Noticing the chimney breast in the room in which we were fitting the fire, I thought, " we don't want that mass of brickwork either. If they would only build just an adequate size gas fire flue for us *in the thickness of the wall*, and have no chimney breast projection whatever, we should then attain the following great results :—

1. A reduction in the cost of building the house ;
2. Greater floor space per room on the same ground area ;
3. Greater cubic capacity in the room, thus providing more air space or breathing ;
4. The gas fire would look more artistic and would be decoratively part of the room, instead of looking like an after-thought ; and
5. There would not be two appliances fixed to serve the same purpose."

I discussed this aspect of the case with some of my colleagues, and found that they had somewhat the same ideas on the subject.

Our position was strengthened by the fact that a few years before, the well-known scientist, Dr. J. S. Owens, had carried out some experiments to ascertain the size of pipe necessary to carry away the products of combustion from an average gas fire. In connection therewith a 4 in. earthenware flue was erected, with a gas fire of the then standard size fitted to discharge into it. The results were perfectly satisfactory and proved that all products of combustion passed up the flue, with a good ventilating effect in addition. Since then the position is far more satisfactory, as gas fires are now constructed with flueways that will carry off their own products of combustion with a maximum of 2 feet of flue pipe, leaving the additional pull of the chimney available for ventilating purposes.

Among others, I continuously advocated the principle I have set out for some years, but the War came and subsequently restricted ordinary building operations so much that we did not get much result until recently. However, one opportunity arose in 1914, and one of the first (it may have been the first) examples of the "Built-in " Gas Fire with Economy Flue, was carried out by one of my colleagues (Mr. W. H. Becket) in a new and elaborate operating theatre, which was built as an addition to a private hospital at 17, Park Lane, London. The structure was erected on the roof of the building.

The roof was to be well equipped with gas as far as Sterilisers, etc., were concerned, and the Surgeon, Sir Arthur Shields, wished to instal a gas fire to enable him to have perfect control of the heating of the room, so that the temperature could be rapidly raised in the event of an urgent operation being required, it being remembered that during an operation of any magnitude the vitality of the patient is very low, and it is essential that a temperature of at least 70 degrees Fah. should be maintained.

An operating theatre is very full of apparatus, and as there are often as many as eight persons engaged in assisting, anything projecting into the room (such as an ordinary gas fire fixed in front of a fire-place) would be an annoyance and even a source of danger. So it was arranged that a 9 in. by 4½ in. flue should be provided in the thickness of the wall of the building, and a " Built-in " Gas Fire should be fitted 6 in. clear of the floor in a slight recess in the wall provided to receive the depth of the back brick and fuel. There was no projecting chimney breast or waste of brickwork and floor space. The fire was specially designed, and made in plain copper and finished flush with the surface of the wall, having no projections of any description. It has now been in use for six years with complete satisfaction, and though the flue is quite short and straight, no difficulty from down-draught or lack of ventilation has been experienced.

This installation in every way justified our claim that a suitably constructed gas fire flue, not only minimises building costs, but provides a ventilating shaft (as I prefer to call it) which is infinitely superior for the removal of products of combustion from gas fires than an ordinary coal fire flue of much greater area.

An article on the subject appeared in *The Builder* of September 24th, 1915, and was reprinted and distributed by the British Commercial Gas Association, to the extent of many thousands, in a pamphlet which is now out of print, but whose publication brought us a number of enquiries from architects and others interested in the subject. Details of this and a second article which appeared in *The Builder* to which I refer later, are contained in issues of the British Commercial Gas Association's publication, " A Thousand and One Uses for Gas."

War troubles and difficulties increased, and the subject hung fire for several years, but early in 1919, I met an architect who was dealing with the proposed erection of some offices in Moorfields. Having fully discussed the theory with him, he agreed that great possibilities attached to the idea, so much so indeed, that he almost immediately afterwards modified the plans of the offices concerned, and arranged with his clients to have gas fire flues and gas grates throughout, instead of coal fire flues and coal grates. As a result of the change in plans £180 was saved in the cost of the building, 96 square feet extra floor space was obtained, and about 5,000 cubic feet extra capacity.

Major Wheeler, the architect concerned, in accepting the theory, admitted that it would reduce the brick footings and foundation concrete for the chimney breasts, also the size of the chimney stacks, while concrete or stone hearths, skewback arches and trimmers would not be needed.

At this time the lack of houses owing to building having been stopped during the war, was being very severely felt, and everybody was talking about building large numbers under the Government scheme. There was, however, an appalling lack of labour and materials, bricks being one of the things which were quoted as being impossible to obtain in sufficient numbers in time for the houses that were going to be built. Then again, the cost of the houses was likely to be almost prohibitive, so that anything which could improve them from the viewpoints of convenience, saving of labour, and increase of comfort, while at the same time reducing the cost, must of necessity, be welcomed.

A second article on the subject appeared in *The Builder* of July 4th, 1919, and a further striking example was quoted therein. Sets of plans for a proposed housing scheme were shown as originally designed by a first-prize winner in a Model Homes Competition, Mr. Harold E. Moss, A.R.I.B.A., and as amended on the suggested gas fire flue principle. The result showed that the advantages obtainable by the new style of building were: Saving in cost of building, £30 per cottage; extra floor space, 40 square feet per cottage; increased cubic capacity, about 700 cubic feet per Cottage.

One thing I specially wish you to notice is that a coal fire and coal fire flue are provided for in the living room. That is what we advocate—one coal fire in each house, except, of course, in good class residences where the people could through the saving of labour in many cases afford to pay for the gas consumed. Most of the tenants of Housing Schemes will, however, be of the artisan or lower-middle class, and could not afford to pay for the gas consumed for, say, 15 hours' fire a day in the living room. Some might even say that working men could not afford to pay for gas fires in other rooms. I do not agree. Let us look at the matter more closely.

We suggest putting gas fires in the parlours and bedrooms. First, let me say that the average British working men are more prosperous than they were some years ago and are ever growing more prosperous as the years roll on. They ask for, and—so long as they on their side give a fair day's work—are entitled to a share in a better life, to enjoy some of the advantages that people with more money have enjoyed in the past. Here is an opportunity for doing something in that direction for them, and I submit with an economy to the Nation and little or no greater expense to themselves than they have hitherto incurred.

Take the parlour, for instance. How many hours in a week is a fire used, and how many days in the year is it necessary? In the Winter, perhaps an hour or so one evening per week, and perhaps a few hours on a Sunday. It is an absolute fact which cannot be denied that for an hour or so's use a gas fire is cheaper than coal. Why, the bundle of wood to light a fire costs nearly as much, nowadays, as the gas for an hour's use. Then the overburdened housewife has no bother in lighting the fire, and nothing to clear up the next day, the room is left clean, therefore, more hygienic, and the mother has more time to see to her children, the rising generation on which we so much depend to put the old Country right again.

What about bedrooms? The old custom in a working-class house was to fit a cheap coal fire interior whether a fire would—or I might even say, in some cases, could—be lighted in it or not. Many, or perhaps it is more correct to say most, of them seldom or never had a fire lighted in them from one year's end to the other. Frequently, not because the old folks, for instance, would not enjoy and be better for a little warmth when going to bed and getting up, for the price of a penny or so, but because it was *impossible* to go to the trouble of lighting a fire and clearing up the mess the next day. If gas fires are built in, they will be ready for use any time, night or day, by putting a match to them, and will be so little used that the tenants will be able to afford to pay for the small cost of gas, with no extra expense for firewood or chimney sweep. One thing must be borne in mind. If gas grates are fixed as part of the building, they will cost the tenants *nothing* unless they are used, and their use and cost, therefore, can be and will be regulated by the extent of the tenant's pockets, in just the same manner as at present. A coal grate only costs money when—and to what extent—it is used, and the same applies to a gas grate.

If proof be needed, first; that it is wasteful to instal coal grates throughout Housing Schemes, and second; that the tenants would welcome gas fires, I have only to point to the fact that in the Well Hall Government Housing Scheme about 1,300 houses were completed in 1916 with coal grates throughout and no gas fires installed. Already the Gas Undertaking has supplied and fixed more than 1,000 gas fires, for which tenants have had to pay, and, therefore, 1,000 coal grates, which have already been paid for by housing authorities, in addition to the extra brickwork involved, are simply being used as unsuitable backgrounds for the gas fires. Could anything be more uneconomic in principle and wasteful in effort ?

I will now say a few words regarding some methods of building the flues, and what sort of terminations there might be on the roofs, instead of the usual chimney stacks.

I am specially referring to houses of the type which will be built in connection with Government Housing Schemes, but—with certain modifications as regards thicknesses of walls—my remarks may well apply to better class residences.

The houses will usually be built in pairs or blocks, and the gas fires mostly fitted to flues in " part " or " partition " walls, but some, of course, may come on side (exterior) walls.

The ventilating shafts, to be constructed in the thickness of the walls should be, say 9 in. by 3 in. for gas fires up to 10 in. wide fire front and 12 in. by 3 in. for larger sizes, or in each case slightly different dimensions could be provided either in width or depth. Some architects may leave out a brick in thicker walls, thus providing a shaft 9 in. by 4½ in. In any event, the smallest one I have quoted 9 in. by 3 in., you will note provides an area of 27 square inches, leaving a good margin over—indeed, being double—the area of the 4 in. pipe—13½ square inches used in Dr. Owens' tests previously mentioned. The area of the ventilating shaft for the gas fire could therefore be smaller than the size I have mentioned if some alternative or additional method of ventilating the room is also provided.

The walls in which the shafts would be provided would usually be 9 in., or when " partition " walls, 4½ in. thick. Sometimes they would be solid, in other cases cavity walls will be used in constructing the buildings.

The termination of the shafts should *not* usually be provided with cowls, which—as a general principle—would prove absolutely superfluous, unsightly and a source of unnecessary expense.

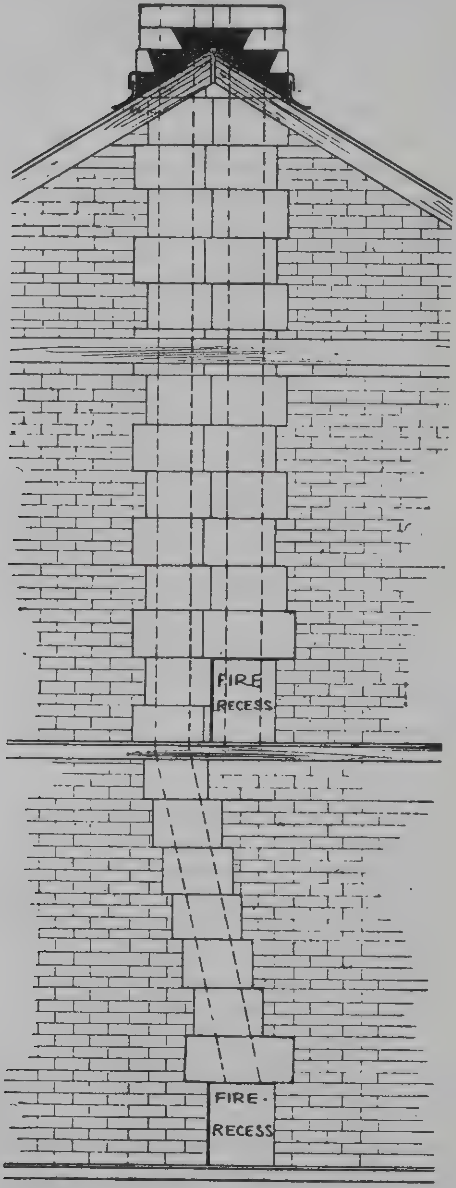
If down-draughts occur, however, in individual and exceptional circumstances, some approved form of cowl could be suitably attached to the outlet on the roof.

Down-draughts will be few and far between, however, so long as the termination of the flue outlets on the roof are at least as high as the highest portion of the building, and preferably slightly raised, say, some inches to a foot above this. Any departure from this general principle should receive careful and expert consideration.

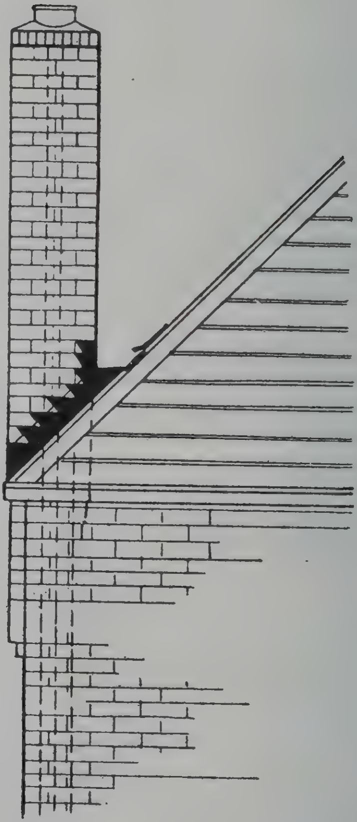
Specially constructed fires are being manufactured for the purpose and are being supplied by the leading gas-stove makers. Notably, The Parkinson Stove Co., The Davis Gas Stove Co., and Messrs. Fletcher, Russell and Co., have " built-in " fires of a very plain and artistic pattern of a high grade quality at mass production prices.

The next point to deal with is : how will the fires be fitted and the flues constructed and terminated ?

In the room itself, a space suitable to the size and type of fire to be fitted should be provided in the wall, in which space the back casting of the fire should be recessed, with brickwork or a concrete slab behind it, the thickness of which would be decided by the depth of the wall. The fire should be fitted back to the brickwork or slab and tied to it in some manner—say by hook and eye fastenings, or wires cemented in the brickwork or slab and tied through suitable slots or other provision in the " built-in " fire. A tiled surround and some cheap form of plain wood finish, with



Gas fire flues constructed with concrete blocks.



Gas fire flues corbelled out in symmetry with the building.

perhaps a small mantleshelf, may also possibly be provided, but this is a matter for the architect. Above the flue outlet of the gas fire the shaft will commence, and will be carried (with the usual ramp, if and when needed) to the roof level.

As regards the termination on the roof, architects will have their own ideas, but I have illustrated a series of suggestions for these. There should be no difficulty in finishing at—or just above—the roof level in some suitable method.

Exception might possibly be taken to the slightness or apparent weakness of the —shall we call them—stacks, mostly, of course, when the flues happen to be in exterior walls, which cases will be in the minority. However, the suggestion then is that the shafts shall be made exactly as those constructed in " party " walls, but when they reach the roof they could be widened or " corbelled " out, in order to make a suitably imposing structure.

When dealing with 4½ in. " partition " walls (allowing for plaster, about 6 in. thick), the best way to construct the ventilating shaft would seem to be to build it of concrete blocks, containing within them an opening of the necessary dimensions.

In walls only 4½ in. thick there could, of course, be no brickwork behind the back casting of the gas fire, but a concrete slab of suitable size (say, 2 in. thick) could be made to go behind the fire to form a backing and to complete the " partition " wall in the room behind the one in which the fire is situated.

If desired, the terminations of the gas fire flues in " party " or " partition " walls of any thickness, could be widened out at the roof level by corbelling the brickwork, or if concrete is used, by thickening the topmost block or blocks.

Several other terminations have been advocated, notably one by Mr. John Murray and one by Major Wheeler, both of which have recently been illustrated in the technical journals and in the British Commercial Gas Association's publications.

It is suggested that the interior surface of the flues should not be smoothly moulded or trowelled, in order to allow any condensation to be absorbed until the flue had become heated, then, of course, it would rapidly dry out.

Each gas fire should have its own separate and distinct shaft. There is danger that this excellent means of ventilating both the room and gas fire adequately and, at the same time, economically, may be brought into disrepute by carrying the theory too far. For instance, suggestions such as the following, which have been put to us : " Ventilating the Gas Fire into a cavity wall with no flue constructed whatever, in the hope that the products of combustion will be absorbed or find their own exit somewhere." This will not do ; the flues should be properly designed and carried out in a thoroughly practical manner.

Another suggestion which should be discouraged is to terminate the flues with open ends in the roof cavity. If this were accepted, we should perhaps find the flue from the washing copper treated in a similar manner, and in this case the products of combustion would be surcharged with a high percentage of steam from boiling water which would condense on the under side of the roof, with very detrimental effects.

I will now give the opinion of some architects on the matter, and cannot do better to start with than quote a few words from a paper recently read by your own President, Mr. Edwin J. Sadgrove, F.R.I.B.A. He said :—

> " He was therefore prepared to plump with his colleagues, Mr. Swain, Mr. John Murray and other Architects, who had given the matter careful consideration, for the abolition of the chimney stack in respect of every room in the house, with the exception of the living room."

In addition to this statement from such a prominent architect, I recently had the pleasure of a conversation with Mr. John W. Simpson, President of the R.I.B.A., and he expressed his conviction that the theory was a correct one.

Mr. John Murray, to whom I have referred, also wrote a favourable article on the subject in *The British Builder*, January, 1920, and my colleagues and myself have received favourable opinions from many other architects.

That is all regarding the theory, but we now come to the question—how far have we got in practice ?

Mr. Swain is building houses at New Earswick, York, with economy gas fire flues on the principle advocated, and estimates that in brick built cottages he saves 5,000 bricks per cottage, and in concrete cottages there is, of course, also a saving in material and labour. Mr. Swain estimates a monetary saving of £42 per cottage. Mr. Yerbury, who, as you know, is Secretary of the Architectural Association, is having a house built for his own occupation, with economy flues and gas fires, and Mr. Robert Lowry, who is architect for Mr. Yerbury's house, also proposes to build one for himself in the same manner.

The Office of Works are installing " built-in " gas fires with economy flues in the Poplar Housing Scheme, and also in a housing scheme in connection with Broadmoor Asylum, Berkshire, and it is within our knowledge that the system is under consideration for a number of schemes in various parts of the country.

The London *Evening News*, April 10th, 1920, contained the following striking paragraph :—

> "*No House Coal in* 1940."
>
> " The Medical Officer of Health to the Diss Urban District Council, reporting on proposed houses, advised the Council to build them without chimney-stacks and fireplaces.
>
> " He suggested that gas and other means of cooking and heating should be provided for, as in twenty years there would be no coal for domestic use."

I will conclude by appealing to architects to give this matter their serious consideration, and confidently ask them to advocate the installation of gas fires in the manner I have set out. The need for economy in the construction of houses calls for every effort being made by everyone concerned. Dr. Addison, Minister of Health, in opening the Building Exhibition, said in the course of his remarks that, one great difficulty towards the solution of which all those concerned in the Exhibition could contribute was the question of cost. He had been looking out for many months for practical and useful suggestions towards solving the difficulty. He must say frankly that up to the present moment the figures as to cost showed a marked inclination to increase. He spoke of the conferences which he had regularly had with Labour on the subject of housing, and said the fact was there was work for two men, and only one man was available. Their housing alone was sufficient to absorb practically every bricklayer in the country. He urged the *encouragement of alternative methods of construction*, and that although houses built of bricks were probably as cheap as any other, the fact was that we had not got the bricklayers who were required for the work.

The Gas Industry answers this S.O.S. or call for help, by saying " Here is a system by which you will save money, get houses erected more quickly, reduce material and labour, and, in addition to all these good things, you will give the tenants better conditions within their homes. If the saving is only placed at £30 per cottage and the system were adopted in half-a-million houses, no less than 15 million pounds would be saved to the Nation, and the houses would be erected more quickly."

Discussion on Mr. Creasey's Paper.

Mr. Maine, in opening the discussion, said he was strongly of opinion that, by the end of another 20 or 30 years, the system advocated would be universal, and Mr. Creasey's paper would be referred to as " An epoch-making pronouncement on the subject." Being a Gas Stove maker, he might excite prejudice, but he would like architects to realise that in the making of Gas Stoves, apart from the financial aspects of the question, this immense and solid satisfaction, that not only had they been building up an industry by which they should live, but in the doing of it they had been conscious that they had been rendering one of the greatest services to humanity of which the world had ever heard, and that in the persistent pushing of Gas for heating and cooking they had been rendering an immense service to their fellow-creatures by lessening the drudgery of domestic work. They had had in view this fact more than anything else, that the outcome of all work would be the abolition of smoke, and consequently an immense improvement in the health of the people and the brightness of our cities. He was struck by an article written by Sir William Siemens forty or fifty years ago, in which he said the time would come when the use of raw coal on our domestic hearths, or for industrial purposes, would be looked upon as a relic of barbarism. Forty years ago people laughed at these ideas, and used to say that the Government would stop the sale of Gas Stoves as they were a danger to the community, and legislation should put an end to the business. Every new industry was liable to be met with prejudice of that kind, the Gas Stove makers knew it ; it was prejudice founded on ignorance, and one has only to look at the press to-day to see that in season and out of season it is persistent, from the health point of view, in the cleansing of the air of our great cities—relieving this great City of London from the pall of smoke which darkens our lives. He felt they owed an immense debt of gratitude to Mr. Creasey for his paper.

Sir Charles T. Ruthen, F.R.I.B.A., O.B.E., Vice-President of The Society of Architects, said that, unlike the last speaker, he was not a Gas Stove maker, but a Gas Stove user, so that he did not know whether he was not in an equally disadvantageous position. Being convinced upon the question of the use of Gas, it would appear that he was not a very good critic, but he personally felt very grateful to the lecturer for his very able paper. He thought, however, there were one or two points which, perhaps, he might very well have used, and perhaps he would take the opportunity of incorporating them if he found them of any value. With regard to the question of coal fires in the parlour and bedrooms of small artisans' cottages, these fires were hardly ever lighted. The family was forced by the plan of the house and the system of heating, to live in the worst room of the house. The reason was that they had a parlour with very comfortable furniture in it, but the trouble entailed in lighting fires, apart altogether from the question of expense, and the mess caused by the fire, which had to be cleared away afterwards, forced the artisans and their families to continue, during the evening time, to live in the room in which the family lived during the day. That was a very important point. It seemed very largely a theory, but it was not. The great objection to the Gas Fire, and he spoke feelingly, for he had nine in his house, was, it was much too convenient. If the Gas Fire was not there there would be no coal fire. They had to be educated that these conveniences were not there to be abused. There was one danger with the Gas Stove : of the little child creeping along the floor and turning on the gas, and he suggested to the Gas Association, when these new houses came into being, that they would have some tap placed beyond the reach of the little child, and not on the floor. Speaking as an architect, it must be remembered that chimney breasts having been used for so long, it has caused the architect to take it into account when calculating the strength of his structure. In a ten-storey building, or a nine, or even an eight-storey building, the chimney breasts form a considerable part in the strength of the structure, and it must not be assumed that the Gas Association could come in and sweep away all those chimney breasts, unless they were prepared to add nine inches of brickwork for the first two or three floors, and four-and-a-half inches for the remainder. The saving would still be enormous, but it must not be supposed that it would be exactly the superficial area occupied by the chimney breasts. He calculated that if a system of Gas Fires was to be installed in, say, one-third of the houses needed to-day, they would save, he believed, 750 million bricks, and also at least 6 days per house on bricklayers, so one would save, in the 250,000 houses, a million-and-a-half days of bricklayers. The saving was colossal. There was another point, that of the chimney pot. It would be possibly advisable, where flues were adopted for gas fires in all the grates excepting that in the living room, if a pot were specially designed with a top on it, so that the rain would not get down into the flue. He did not see why the flue should not be kept perfectly dry by being covered at the top, with openings all round. The saving in the cost of cottages was very important, especially to-day when one came to consider that even at £30 per cottage there would be a saving approximately of one house in every thirty, with the present cost of cottages at £900, which might be more to-morrow. That was a consideration, and when, say, three-quarters of a million houses were required, the saving of one house in thirty would be a very large number. They were building chimney breasts to-day because they had always been put in. If chimney breasts were discarded there would be no facilities for cupboards. The speculative builder would be glad, because the lack of cupboards would not be noticed, but if it was an ordinary house and the cupboards were not put in, the purchaser would say, " Why did you not put cupboards there ?" And he would want them put in before he bought the house. Then in regard to the advantage which the coal flue provides, the idea of the electricity expert to do away with flues altogether was open to very serious complaint. A flue, even if it was a 9 by 4½, or even 9 by 3, was sufficient for the ventilation of bedrooms, and it could not be choked up with a couple of newspapers like the ordinary fireplace in the artisan's house often is, because the tenant thinks that by closing the flues he keeps the room warm. By means of a Gas fire a satisfactory flue can be provided in every room. The saving in brickwork was of the greatest advantage to-day, when the brick-laying craft was so short of hands. He had very much pleasure in adding his words of thanks to those of the previous speaker to the lecturer for his very able paper. He had not gone too far and he had put his case well.

Mr. Davis expressed his thanks to Mr. Creasey for his excellent paper and for the pioneer work he had done in connection with that flue. He believed Mr. Creasey was the originator of the gas fire flue, and he knows, as far as Mr. Davis' particular company was concerned, they had also done a good deal of work in connection with that particular flue, and the more he looked into the advantages and the possibilities of it, the more satisfactory the position appeared. There was a great prejudice still existing in the minds of the public with regard to gas fires. That was due, no doubt, to the fact that many years ago the gas stove maker did not consider the gas fire from the scientific aspect. But some few years ago a Gas Stove firm went into the question very thoroughly of the hygienic efficiency of gas fires, and to-day no gas fire maker of note supplies a Gas fire unless it is capable of passing all its products of combustion through its flue outlet unaided by any artificial means of chimney outlet. That had no doubt a great deal to do with the encouraging results they had heard from a previous speaker, and also the favourable view the chairman took with regard to gas heating. To-day it was no longer necessary to place a bowl of water in front of the fire. They no longer heard of burnt eyes and headaches. They need have, therefore, no fear as to the popularity of gas fires in National Housing Schemes. The old-fashioned register often had paper, and even sacks put up the chimney, but when the gas fire was fixed under the National Housing Scheme, there is no likelihood of its ever being stopped up, because the gas fire would be so useful that it would be impossible to have the flue stopped up. There had been various points raised in connection with fitting gas fire flues by the authorities, and there were certain criticisms to be made in regard to gas fire flues, but all of them could be easily met. One of the principal criticisms was that, if they put in gas fire flues, it would not be possible, if the people do not like gas fires, to put in a coal fire flue afterwards. He had sufficient confidence in the gas fire to know that if a person once uses them, particularly in National Housing Schemes, he would not go to the expense and trouble of using coal, and for that reason he did not think that argument would be of very great importance in the future. Then another point raised by a very important authority that morning was the question of expense, and the case he cited was that in the case of illness the house for some weeks could not afford to have a gas fire going night and day. But in that case would not the patient be taken to a hospital ? In many instances patients would not remain in their own houses. He was with the last speaker in regard to flue caps. The open flue cap, he thought, was wrong. They had their own particular flue cap which had a top on it. There was one point mentioned by the last speaker in connection with his gas fires at home and the danger of children playing with the taps. It was only necessary, when the gas fire was fixed, to cut a hole in the floor and fix a floor plate so that the supply of main gas could be turned on or off, and if the children did turn the taps on they would do no harm.

Mr. Ellis Marsland (District Surveyor, Camberwell) said all the previous speakers had made glowing comments on the advantages of gas stoves and gas heating. He should be sorry to put a damper on the thing, but there was the other side of the question. It had been advocated by the reader of the paper that this system of gas heating should be adopted in all housing schemes, and he said that as the workmen were better paid to-day they would be able to afford it. Now the Operatives who met at Olympia the other day said that although they were getting more than £4 a week they were worse off than when they were getting 30s., so that if a man had gas in his house instead of the ordinary fire grate, he would soon begin to grumble, and up would go wages again. That was all a question of cost, and he would have been very pleased if the lecturer had given some comparison of the cost of the ordinary fire and of the gas fire. Everyone would prefer the gas fire, because it was less trouble, but the whole thing was a question of cost. Then again, a previous speaker said that gas fires prevented the smoke nuisance, but did he know that the products of combustion of gas were much more deadly than the ordinary combustion of coal in a grate, and much more deadly in this way, that one did not notice it ? There was just as much bad air coming up out of the top of the flue with a gas fire as with an ordinary coal fire, but with a coal fire the danger could be seen, and if the flue had a tendency to down-draught one could always tell it was a coal fire, but not with a gas fire until perhaps the room was in a very unhealthy condition. Then the asbestos fuel was very slight and very tender. Now if some different sort of fuel, something more lasting than that asbestos fuel could be used, it would have been an advantage.

Mr. C. McArthur Butler, Secretary of The Society of Architects, said he had lived for ten years, day and night, in a building almost entirely heated by gas, and where all the cooking was done by gas, they had more grates even than Sir Charles

Ruthen had. He was not aware that the fumes were so bad as Mr. Marsland made out. From the point of view of convenience the Gas fire was very good, and in saying that he was not comparing it with any other form of heating, but was taking gas as the only source of heating under discussion. The danger pointed out by Sir Charles Ruthen was real. It wanted a certain amount of supervision ; but where people were careful with it, it was quite good from the financial point of view as well. They had found gas very convenient. Indeed, if it had not been for their gas installation they would never have been able to carry on through the recent difficult period. In regard to another point, more architectural than technical, he did not know if they had seen his letters in the papers calling attention to the disfigurement of buildings from the architectural point of view, by advertisement. He got letters complaining of the tin tall boys which are put on the top of chimneys from people who blamed architects for it. He did not agree that architects were responsible ; it was usually due to the situation of the houses. But, perhaps, if they did away with coal fires and substituted gas, they would obviate that. As an architect he would prefer a down-draught rather than to have one of those things stuck on top of his chimneys. On the other hand, if they were going to do away with chimney pots and stacks, they were going to do away with what is sometimes a very fine architectural feature, particularly in old houses. But to-day they were dealing more with the modern house, and he submitted that the British Commercial Gas Association should not only consider the matter from the commercial aspect—he did not know of any other Association which was better in that respect—but that they should co-operate with architects in every possible way, and they would find then that they would get a good deal of sympathy in their efforts to popularise this particular form of heating, because architects were in favour of putting up buildings which were not only beautiful to look at, but also desirable and useful to live in.

The Chairman (Mr. E. J. Sadgrove) said that Mr. Creasey had somewhat confined his lecture to fire flues. He supposed his reason was that he had in his mind the National Housing difficulty, and incidentally, in the majority of cases probably, he might have thought it better to leave out the heating of the bath and the general supply of hot water, or otherwise it might have extended his paper to too great a length. Undoubtedly there was a very great saving in leaving out chimney breasts and flues. As to the exact number of houses in which they would be left out, that depended upon the extent to which the British Commercial Gas Association educated the public and the architect, through their " One Thousand and One Uses for Gas." If the advantages of gas heating were realised, probably nine hundred and ninety-nine out of every thousand would never light a coal fire. Those people would leave out the old-fashioned grates and chimney breasts and specify to be installed gas installations. The tops of the pots were a detail. Mr. Creasey did not claim to be an artist or an architect. He could not agree that the mere fact of having a gas fire in the bedroom was a temptation to extravagance. He would be inclined to think that a man would rather sit by his gas fire for five or ten minutes than he would go to the public house. As to the necessity of increasing the thickness of the walls if chimney breasts were left out. Mr. Marsland would have put them right on that by saying that if they were talking about leaving out chimney breasts and increasing the thickness of walls, the Building Act did not say they should take into calculation the thickness of the chimney breasts in the thickness of the walls. It said the walls shall be so many inches thick, and the chimney breasts did not come into the calculation at all. In all ordinary cases, with all due deference, it was not necessary to increase the thickness of the walls in order to take away your chimney breasts. He thought Mr. Clare might agree with him, as a user of modern methods. Mr. Davis mentioned the difficulty where one did not put a fire flue and afterwards wanted one. Well, one must take some risks, and what was the use of putting in a fire flue when, in 999 cases out of a thousand it would not be used? Why could not they then build the flue after the house was up, if they wanted it so badly, in that one case out of a thousand? It was not impossible, although it was difficult. He was very pleased indeed to propose a very hearty vote of thanks to Mr. Creasey for the admirable way in which he had dealt with the matter.

Sir Charles Ruthen seconded the motion, which was carried by acclamation.

Mr. H. H. Creasey, in reply, said he was very pleased with the reception the paper had met with. Mr. Maine gave him the impression that he was more or less of a public benefactor, but Mr. Marsland gave him the impression that he was a veritable scoundrel out to poison all the people. Mr. Marsland said that one did not see the coal smoke. Well, one saw nothing else on some days in London, and to say that the products from the combustion of gas were worse than from coal was wrong, because they had already removed a large quanity of sulphur and other deleterious matter from it, and the products were so vaporous that when they were up through the chimney they were gone. As regards down-draught he did not agree that it could go on over and over again to such an extent that it became dangerous to anyone in the room. The amount of CO_2 in the products of gas fire in these rooms would be so small, that it would be no danger at all. Down-draught was more or less intermittent. It practically never continued in one downward stream, and if it did it would not be very serious. He came there with some trepidation, and with the intention of learning. He thought they ought to be more indebted to Sir Charles Ruthen than to himself, because he certainly had given them many things to think about, and was going to lead them further on this road which he hoped they were going to travel, and in spite of all opposition, they would find there would be houses built by the hundreds of thousands in this way in years to come.

Competition Conditions.

The Society has filed for reference particulars of the following current Competitions :—

*BATLEY (Lay-out), *BRADFORD-ON-AVON, *CHICHESTER, *CLEETHORPES, *LOCKERBIE, *GATLEY, *ARTHURET, and *HAWICK (War Memorials), THE IDEAL PUBLIC HOUSE (Allsops') and COLOUR SCHEME COMPETITION (Parsons).

Those starred are still barred to members of the Society owing to unsatisfactory conditions.

Victory Scholarship Fund.

There is still a large amount to be raised in order to provide a sufficient sum for investment for the purposes of the Scholarship, which is to provide a prize of £100 annually to be competed for under the conditions laid down elsewhere in this issue. It is hoped that through the generosity of Members the deficiency will be made good. Donations should be sent to the Secretary of The Society of Architects, 28, Bedford Square, W.C.1.

General Building Problems.

Sir Charles Ruthen, O.B.E., Senior Vice-President of The Society of Architects, presided at a Conference held at the Building Exhibition, Olympia, on Monday, 19th April, 1920, between The Society of Architects and Representatives of the National Federation of Building Trades' Operatives.

MR. J. P. LLOYD, President of the London District Council of the N.F.B.T.O., said he proposed to speak on the large subject of "General Building Problems," in as short a time as possible. The question of Housing had been allowed to get into a deplorable muddle owing to the fact that the Government had let the whole matter of Housing, which became acute in 1915, slide until 1918, and had then consulted amateurs instead of going to the men who knew something about the subject. The result was that even now matters were little better than when the Ministry of Health was formed. During six years of non-building, the Building Trade had lost a quarter of a million operatives, 25,000 of whom came from London alone. This was due chiefly to the War, and also to men leaving the Building Trade for a more lucrative calling, In addition to this, and what made matters more serious, was the fact that no recruits were entering the Trade, or had entered it for the past six years. There were not enough men in the Building Trade now to do the necessary repairs, let alone build the new houses required. This state of affairs might be remedied, and he understood Mr. Murrey would have something to say upon the subject in a few minutes.

The operatives in the Building Trades were not a soulless body of men as some people seemed to imagine, but they thought for themselves, and had thought a great deal more about some of the problems confronting the country in the shape of Housing difficulties, than the Ministers entrusted with the task of remedying the shortage appeared to have done. As a result, they had come to certain definite conclusions. One was that Luxury Building in any form or shape must stop, and the men would refuse to work on it. What was Luxury Building? There were various ideas upon the subject. Many people thought that cinemas were luxury buildings, but as they were the only form of amusement provided for many sections of the working classes, the operatives were willing to build them, when they considered it to be necessary. In the opinion of the operative the type of building to be regarded as "luxury" was a club, such as the one being erected at enormous cost and trouble in Piccadilly, or any other Club, which was a selfish building because it was only a meeting place for a certain body of men to talk in. Another class of work which they regarded as "luxury" work was the structural alterations being undertaken by various public companies and banks and other commercial concerns. He wished he had more time to dilate on this question. He now came to the question of what were utility buildings and what was utility work as opposed to luxury work? The Ministry said "houses to live in." What kind of houses? "Working class houses." Now that the operatives have seen the standard plans of what the Ministry considers "working class houses," they will forbid their men to build them. The Ministry was everywhere sacrificing efficiency to economy in these plans. The working classes have not the same idea of the meaning of a "home" that the Ministry appears to have. They want very much better houses than they had ten years ago. But the Ministry seemed to imagine that the "working class dwelling" of 1910 was still good enough for the working man of 1920. The working man now wants, and if they are not provided he will refuse to build, pretty houses, well-designed, substantial, and nicely decorated. The Ministry had just passed plans for houses with all the woodwork treated with Solignum. As everyone present was aware, this treatment involved the use of tar, which meant that woodwork so treated could never be painted. Solignum might be all right, he had nothing to say against it as a process, but the working man who was to be condemned to live in the houses so treated might have entirely different views as to their decoration, and he should have been consulted first; and his Federation was going to see that he was consulted first. In this particular instance, the men had already objected to the plans of these particular houses. Very many had been erected and passed by the Authorities where the interior fittings, and indeed the whole dwelling, was of the flimsiest description, and he hoped the men would refuse to build them. If they were persisted with, the Federation would call their men off. He appealed to Architects to join in with them in refusing to resuscitate slumdom, which as far as he could see, was what the Ministry was aiming at. If it came to the point the operatives would sooner proceed with "luxury" work, than erect some of these new houses.

The operatives were accused of wage-profiteering. He would like to make it clear, that, in spite of what had been said to the contrary, the workman's wage had no effect on the high prices of materials. Dr. Addison had said that the high cost of materials was to some extent justified. The men saw the capitalist making a profit of 300 or 600 per cent. on these materials and heard what Dr. Addison said, and then were expected to work for the same wage. Why should all the self-sacrifice be on the men's part? The operative had so far only increased his wage 100 per cent. on his pre-war wage, whilst the cost of living had risen over 150 per cent. And he was inadequately paid with his pre-war wage. If the capitalist was justified in profiteering, surely the men were justified in increasing their wages to live. But the men said more. They said that if the capitalist was to be allowed to make such huge profits, some of them were going to come their way. And this did not encourage the operative to "put his back into things," as he was continually being urged to do. He wanted to know whether the new houses were really being erected for his benefit, or whether, as it appeared to him, they were being erected to put money into the pockets of the profiteering contractors. Why should they increase their output until the Government stopped profiteering? When they could feel that every ounce of extra work put in by them was really and truly for the benefit of the community, and not for the personal enrichment of the profiteer they would do so.

A year ago the Building Industries' Consultative Board was formed, consisting of Architects, Master Builders and Operatives. The Society of Architects knew it well, for their own President was a Member of it. This Board had done an immense amount of work in searching for the causes of the Housing trouble and delay, and formulating remedies, and yet though the Ministry of Health was perfectly aware of its existence and composition, they had never once asked for its advice or recommendations on any matter. That sort of thing riled the operative, as he had no doubt it riled the Architect, and did not encourage him to proffer any further help to the Ministry.

The Ministry had got itself into its present horrible muddle, and as far as he was concerned he was tired of trying to help, and it could get itself out again.

Mr. Edwin J. Sadgrove, F.R.I.B.A., President of The Society of Architects, agreed with Mr. Lloyd's remarks as to the necessity for the houses being well-designed, substantial, and well-fitted. If the Ministry would only make a point of consulting Architects, and insisting upon Architects being engaged on all Housing schemes, there would be no difficulty about this. Unfortunately, the Ministry relied upon anybody, generally the wrong people. The Architects too, must be genuine qualified

Architects, and this was another point in favour of the Statutory Registration of Architects, a measure which The Society of Architects had been pressing for for the last 35 years.

He disagreed with Mr. Lloyd's proposal in effect, to shut down all building except that of workmen's cottages. Such a procedure would throw numbers of Architects and other people out of employment.

Another point was that continued rises of wages must affect the price of materials and would always increase the cost of living, and if the men kept on demanding fresh increases he could not see where the matter would end.

He also considered that maintenance of property was by no means "luxury" building, but was very necessary. He hoped that this Conference would lead to others, as he thought both Architects and operatives could relieve each other of many misunderstandings, which would be for the benefit of the Building Industry, and so for the benefit of the Community at large.

He would like to add that the Building Industries Consultative Board was still in existence, and it was not even now too late for the Ministry to seek its advice.

With regard to "luxury" buildings, he understood Regional Committees were being set up, consisting of Architects, Master Builders, Operatives, and others, to "watch" local needs and prevent luxury building where necessary.

Mr. Marlowe Reade stated that he had been a Member of the Tudor Walters Committee on Housing, and might be able to clear the air a little. He was glad to hear that the will-power of the operatives was a factor in the situation, and that if present misunderstandings were cleared away, the Housing delay would be to a large extent modified. He was only sorry that they admitted that they were hanging back now. He thought that the wrongly-designed houses objected to by Mr. Lloyd were the fault of the Municipalities who chose them, and not altogether the fault of the Ministry of Health, who certainly passed the plans, but passed them at the request of the Municipalities, who were responsible for erecting houses suitable to their localities. He also thought that decrease of output was a wrong policy from the point of view of the men's own class, who would after all be the people chiefly affected.

Mr. J. Murrey, Secretary of the N.F.B.T.O., said that on the question of decrease of output, the whole trouble was that the older men in the Building Industry could never eradicate from their minds the old fear of unemployment. In the old days of piecework or timework, as soon as a man's job was over he had to walk the streets for several weeks, until he found another job. This state of affairs was responsible for the doctrine of Ca'Canny, whereby a man was taught to make a job last as long as possible to overcome the danger of unemployment. He thought that that time had gone for ever, but it was a very difficult matter to convince the men, who had been born and brought up under the old state of things, that the danger was really past. He could do what many had not done and propose a remedy. If the Government wanted recruits to enter the Building Trade, and the non-entry of recruits was one of its most serious problems, he suggested that they should in some way get hold of the men, particularly the young men, and educate them into seeing for themselves that there was no danger of unemployment. They must be convinced of this, even if the Government had to guarantee free unemployment insurance, or the day was not far distant when the Building Trade would die out for lack of recruits.

And then if the Government wanted to get the best work out of the man they must instil into that man that he is going to help a worthy end, and not as Mr. Lloyd had suggested, put money into the Contractor's pocket. He thought the best, and possibly the only system that the man would believe in would be some profit-sharing system whereby the community at large would benefit and there would be no possibility of any one man profiteering. It was a mistake to think the men would or could not understand such things. The operative did indeed do a great deal of thinking, and he was only waiting to be convinced before working as perhaps he had never worked before.

SIR CHARLES RUTHEN, O.B.E., F.R.I.B.A., Vice-President, said he thought these Conferences were a very good thing, and hoped that this would not be the last between the Society and the operatives. Dr. Addison had said at the opening of the Building Trades Exhibition, on April 10th, that he was sick of Conferences. Perhaps he was. It was very easy to get sick of Conferences when the people you conferred with were the wrong people. Let Dr. Addison try some Conferences with the right people, and great good might result.

MR. S. STENNET, of the London District Council of the N.F.B.T.O., said that he would like to back up what the other speakers had said. He appealed to the Architects as the best educated men of the Building Industry to lay these views before the Ministry in such a way that they would be bound to take notice of them. He suggested that if the Ministry did not do something worth while before very long, the operatives would take matters into their own hands, and possibly one of the first things that would happen would be that some of the large mansions inhabited by the gentlemen responsible for the delay might well be converted into tenement dwellings!

He expected that an important announcement, on the lines of what Mr. Lloyd had said, would be put forward before the Government in the course of the next few days, and if it were not heeded, very serious consequences might result.

He appealed to the Architects generally, and to The Society of Architects in particular, to stand by the operatives in whatever line of action might be undertaken.

Mainly about Members.

The Will of the late MR. HENRY TITUS WAKELAM (Member), Architect and Surveyor to the Middlesex County Council, has been proved for £17,470.

MR. R. HARDY SYMS, who was recently demobilized from the Army, where he held the rank of Major in the Royal Engineers, has been appointed Inspector of Housing under the Ministry of Health for Region G.

MAJOR CYRIL THOMPSON, T.D., of Bristol, has been appointed Inspector of Housing under the Ministry of Health for South Wales.

At the Court of the Notts Commissioners of Sewers, held at the Shire Hall, Nottingham, on Saturday, the 24th ult., for a part-time surveyor, CAPTAIN H. W. LOCKTON, R.E., of Newark, was appointed. There were eight candidates interviewed by the Commissioners.

MR. EDWIN J. SADGROVE, President S.A., has been appointed by the National Housing and Town Planning Council a vice-president of the Inter-Allied Housing Congress to be held in London in June, 1920. The Society will also be represented at that Congress by a delegate nominated by the Society.

MR. WILLIAM E. WOOLLEY has been admitted a corresponding member of the Societe Centrale d'Architecture de Belgique. He already holds a similar position in other overseas professional bodies, including the Societe Academique d'Architecture de Lyon.

The National Building Code.

At the Conference held at the Building Exhibition at Olympia, under the auspices of The Society of Architects, on April 20th, representatives of the National Federation of Building Trades' Employers attended to explain and discuss the proposed new building code. Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., V.P.S.A., took the chair.

Mr. Forsdike, Senior Vice-President of the Federation, said that the code was an attempt to express fair conditions both for the builder and the architect. The day when builders took very little interest in the conditions under which they worked had gone by, and while they were not out for any extravagant ideas, they had determined to get fair and honest working conditions, so that the builder, the architect and the employer might benefit.

Mr. W. Moffat, Birmingham, said that the conditions in different parts of the country were not such as to necessitate separate codes, and it was felt that there should be one code for the whole of the country, and if such a document could be produced which was good enough for Public Authorities, it would be good enough for private use, and *vice versa.*

The Drafting Committee had not worked upon existing forms of contract, but thought it best to take their own experience and start again at the beginning. They came to the conclusion that they had to look at the matter solely from the point of view of the contracting parties—the employer and the contractor. In order to bring building contracts on the same basis as contracts between willing buyers and willing sellers in other industries, it became necessary clearly to define the position of other people coming on to the job, such as the architect and his representatives, the quantity surveyor, the clerk of works, the sub-contractors, the contractors' foreman, and other people. It was the practice in the commercial world that the purchaser should say exactly what he wanted, and in the code that was embodied in the bills of quantities and the working drawings ; any other documents, including the specification, became subsidiary matters. The Federation desired that the contractors should take entire responsibility for the work, and that the contractors should delegate any work that had to be done by sub-contractors. Given ten years of satisfactory working, he thought it was not too much to expect that at the end of that period it would be adopted by the whole of the trade, under Government supervision. A committee were at present at work preparing a form of standardised quantities. The question of arbitration was also under consideration. The committee did not see why the procedure could not be elaborated so that arbitrations in the building trade might not be more expensive than legal cases, and that they might be fought out locally. Builders were no longer prepared to carry out contracts on the old lines ; there were far too many risks and far too little return for the work and capital put into a job, and they were determined to have better conditions in the future. In his opinion, the best plan would be for the Government to call a conference to consider the matter, and to issue a document to stand for a term of years, and one that could not be altered until the expiration of that period. Concluding, he remarked that they had devoted three solid years to the preparation of a thing which had to come, and had to stay when it had come.

Mr. Woods, Bolton, said there was a revolution of conditions going on throughout the world, and it had not left the trade untouched. Agitation had been going on for ten years for the alteration of this and that clause, but it was felt by the Federation that they could not go into any particular clause unless it was a reconsideration from the very bottom, and that was how it came to be brought about during the war period. With respect to the arbitration clause, the trade did not wish for expensive arbitration, but for friendly and amicable settlement at as little cost as possible, and this was provided in the code by the formation of panels of arbitrators, consisting of architects, builders, and quantity surveyors in each area, which could be called upon to adjudicate in any case in their area. There were many architects with whom they did not require any contract whatever, but there were bad architects as well as bad builders, and a strict code had to be prepared to meet everybody in the profession.

Mr. E. J. Sadgrove, F.R.I.B.A., (President of The Society of Architects) said that in the first instance, rightly or wrongly, the client looked to the architect to watch his interests, and, speaking personally, he could not advise a client to sign a contract such as that under consideration, because the whole responsibility seemed to be thrown on to the employer all the time. From the point of view of the contractor, the contract was "heads I win, tails you lose." With some consideration between representatives of architects, contractors, and quantity surveyors he thought a sound document could be prepared, but as it was, he did not think it would be accepted by The Society of Architects, which body had seen the faults in the Institute form of contract, and had gone into the matter and produced another of their own.

Major Sylvester Sullivan, A.R.I.B.A., M.S.A., said they wanted a really well-balanced document that would give equal satisfaction to all sides, and he took it that was what the builders were out to give. He suggested that the R.I.B.A., The Society of Architects, and the Employers' Federation might combine in an application to the Government to consider a new building code.

Mr. Thompson, Lincoln, said that there appeared to have crept up among architects the feeling that the contractor was a man to be watched. The fact that they refused to work under present conditions was entirely due to the way they had been treated in the past by certain architects. They had had to rely entirely upon the goodwill of the architect, and often they had trembled at the conditions they had had to sign. He held that the majority of those in the building trade were prepared to give a fair thing at a fair price.

Mr. Marlowe Reade said that he wanted architects to understand that a code once settled would result in much cheaper building. He was very glad to see that the owner was made responsible for anything which was discovered on the site which would add to the cost of the building. The erection of a building ought to be on a commercial basis, and not on a gambling basis.

Mr. Nicholls (Gloucester) said that the interests of the architect and the builder should coincide; to create confidence there should be the feeling that they were dealing squarely, one with the other. Under present conditions the contractor was being forced into channels into which he did not want to go, in order to protect his own interests.

Mr. Taylor (Bradford), said that it was a mistaken idea that builders were against the architects; they were dependent upon architects for their work, and they wanted to work with them and help them in every way they could.

Mr. Anderson (South Wales), said that under the old form of contract the builder became a cipher and not a man. In the old days even the contractor's very plant was not his own so soon as he took it on to the site. There always seemed to be a suspicion against builders, but what was one to say when they found architects entering into competition with them as builders?

Mr. Sadgrove said that it was news to The Society of Architects that such a thing was taking place as Mr. Anderson had just mentioned. It had always been an object of the Society to prevent that kind of thing.

Empire Timber Exhibition. 1920.

The Department of Overseas Trade is organising an exhibition of timbers grown within the British Empire, to take place at the Holland Park Skating Rink, London, from the 5th July to the 17th July, 1920.

The main object of the exhibition is to bring prominently before architects, inspectors, firms who have to specify timbers in their contracts, as well as the users and consumers of timbers, the full range of Imperial grown timbers, and especially those timbers which up to the present are only very slightly, if at all, known in this country. At the same time, the Exhibition will demonstrate the chief uses for which such timbers are suitable.

The Department have invited The Society of Architects to be represented on the Advisory Committee, and the Council have delegated Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., V.P.S.A., to act on behalf of the Society.

Proceedings of the Society.

An Ordinary Meeting of The Society of Architects was held at 28, Bedford Square, W.C.1., on Thursday, 13th May, at 6 p.m. The President, Mr. Edwin J. Sadgrove, having taken the chair, the Minutes of the Ordinary Meeting of April 15th and of the Extraordinary General Meeting of April 15th, as published in the *Journal*, were taken as read, and were confirmed and signed.

The Secretary announced nine nominations for membership and the admission by the Council to the Register of Students of Frederick William Roberts, of Mumbles, Swansea, and Herbert Cutler Wilkinson, of Milton Street, Nelson.

The Secretary also announced that all the candidates who sat for the Society's April examination for Membership had failed to satisfy the examiners.

He further announced that 25 candidates from all parts of the country had taken part in the preliminary competition for the Society's "Victory" Scholarship on May 1st. From these, the R.A. Atelier jury had selected 10 for the final competition, to be held on June 5th.

The ballot was then taken for the election of the following candidates for Membership, and was declared to be unanimously in their favour :—

Badenoch, Henry Sime, County Education Offices, County Hall, and 122, Clarence Avenue, Northampton. Brown, George Wilfrid, 22, Grantham Road, Stockwell, S.W.9. Cox, George Bernard, 109, Colmore Row, Birmingham. Crump, Thomas Graham, 1, Addiscombe Road, Croydon. Deckman, Harry Arthur Cornelius, "St. Brelades," Marine Avenue, Leigh-on-Sea. Derry, Charles, 94, Palace Road, Streatham Hill, S.W.2. Fawcett, George Herbert, 102, Westborough, Scarborough. Halford, Frederick Edward, 8, Southampton Street, Bloomsbury Square, W.C.2. Hobson, Frank Garlick, 57, Baker Street, W., and Winnipeg, Manitoba. Honey, Robert Llewellyn, F.S.I., 4, Albany Terrace, Chatham. Overy, Clement Frost, 19, St. Catherine's Road, Bootle, Lancs. Payne, Albert Ernest Stanley, "Danesfield," Walton-on-Thames, Surrey. Piercy, Matthew Algernon, Town Hall, Warrington, Lancs. Reith, Alexander Murray, O.B.E., J.P., King's Buildings, Hornby Road, Bombay. Thomas, Charles Stanley, 9, Bilton Road, Neath, South Wales. Underhill, Arthur Francis, 31, Kingsway, Stoke, Coventry. Williams, Percy James, Cornhill Chambers, 37, Wind Street, Swansea, and Carne, Carmarthen.

The proceedings then terminated.

* The All-Electric House.

BY MR. J. W. BEAUCHAMP,
DIRECTOR OF THE ELECTRICAL DEVELOPMENT ASSOCIATION.

Mr. Beauchamp said there were in this country a large number of houses which might be called "all-electric houses." The number was, however, limited, though the number of houses which might with great economy become so was unlimited.

The open coal fire was probably the greatest taskmaster since Pharoah, the continuous waster of labour inside and outside of the house, the destroyer of our greatest national asset, and the one which no effort could replace; but with it all the open fire suited our climate and temperament, and he thought it was going to remain for many years to come. The solution lay in raising the efficiency of the grate without destroying the cheerful character of the fire, and also reserving such a fire for positions where its cheer could be appreciated. He thought that as years went by we should come to the all-electric house, but as it was at present we had to content ourselves with the part-electric house. There were many rooms in the house which were so seldom used that it hardly justified the cost of grate and chimney, let alone the labour entailed. Directing attention to the part-electric house, Mr. Beauchamp said that electricity might be used for all lighting, cooking of food, warming of rooms, and the boiling of water already heated by the fire, with the result that the householder could burn a small quantity of good class coal, and use electricity made from poor class coal burned in the power stations under scientific conditions, with the overall result that there would be less air pollution, less work, less ill-health, less money spent on renovations, and a big economy in the use of the nation's fuel. Houses equipped in this way offered, as an offset to the cost of electrical appliances, savings in regard to flues, chimney breach, grates, and also the occupier's fire-place furniture, whilst they would give the architect greater freedom in planning.

As time went by one might expect that falling cost of electricity generation and of appliances would still further increase its use for heating ; people would become accustomed to its convenience for cooking, and for heating in some parts of their houses, and so be gradually weaned from their coal fires.

Central heating systems for large buildings had been brought to great perfection, and the problem of heating a street of houses was not essentially different or much more difficult. The electrical engineer's interest in these systems lay in the possibility of using up much of the heat at present lost in his generating station, and the selling of it as a by-product.

It was sometimes said as a reproach against electricity that only a moderate percentage of the heat contained in the coal used was passed on to the consumer, but to that there were several replies First, the consumer cared nothing for such arguments, and judged the value of the service given him by its convenience and all-in cost for a period of years. Second, where the electricity was produced by water-power the argument did not apply. Electric current was even used to heat boilers for raising steam in some hydro-electric systems. Third, the loss of heat complained of was more apparent than real, so far as the ultimate uses were concerned, because when he received the electricity he could convert it into light, heat and power with a minimum amount of loss. Having got over the price and waste, nobody questioned whether they would like to use electricity in their house, for there was nothing else to give them quite the same service.

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* A paper read before the Society at the Building Exhibition, Olympia, on April 16th, 1920.

In considering the possibilities of electricity for any purpose it was essential to bear in mind that the art and practice were developing at an extremely rapid rate.

He was in touch with a large number of undertakings, and had noted with a critical eye electrical practice in many parts of the country, and without doubt the most striking thing was the large difference between the average technical practice and the best, and the great disparity between the costs and facilities offered in some places as against others. He mentioned the out-of-date fittings he saw in some institutions, and said that he therefore felt very strongly that there was room for closer union between the architect and builder and the electrical engineer.

Mr. Beauchamp proceeded to draw comparisons between the prices of gas in London and the price of electricity, and stated that the comparison was by no means unfavourable.

Concluding, he said he hoped architects would call upon his Association for any information it could give. He did not pretend that it was conducted upon a philanthropic basis, but they could rely upon it to give them a truthful answer to any question. Those who served out electricity for a living, had to live with their customers, and must see them satisfied.

DISCUSSION ON MR. BEAUCHAMP'S PAPER.

The Chairman said that he was not an electrical expert, for an architect could not specialise in everything, but he would like to offer a few criticisms. Mr. Beauchamp had given them some comparisons in regard to the cost of heating and cooking by electricity *versus* heating and cooking by gas. How about electricity *versus* coal? A friend of his had had electricity installed throughout his house. The coal fires had been taken out, the bath was heated by electricity, and there were electric radiators. But he had burnt his boats, and when something went wrong at the generating station he had to resort to his (the Chairman's) house for the cooking of the Sunday dinner. The conclusion he had come to was that with coal at £3 a ton, electricity would have to be supplied at ½d. a unit to equal it for cooking and heating. He did not say for electric lighting. Again, there was some variation in the voltage. At one moment one might find the light very good, and at another time very bad.

Mr. MacArthur Butler said he thought it would be difficult in some rural districts at home to get a supply of electricity, owing to the prejudice against overhead transmission, which was much more common in other countries, and thought there was enormous scope for it in this country. Mr. Butler referred to the bad arrangement of lights in shop windows, and said that a great amount of electric light was wasted owing to its being improperly applied. Shopkeepers seemed to think it necessary to fill the window with electric bulbs, and often one could not see the goods in the window because of the glare. Here he thought there was a great deal the Electrical Development Association could do in educating consumers in the proper application of electricity for indoor lighting. He was interested to hear of the proposal of house-to-house hot-water heating, and it would be an excellent thing if it could be done. But he thought that one would never get rid of the Englishman's liking for an open fire.

Sir Charles T. Ruthen said that he was going to take a view opposite to the Presidents', for he feared sometimes that these things were going too far. Was not the saving of labour reaching the limit? People were getting too lazy to do anything, and he humorously suggested that the human organisation itself would eventually be carried on electrically. Perhaps it was for the good of the world, and perhaps it was not. But he thought the savage in a good many cases was happier than civilised men were to-day. He referred to the safety from fire of the electric light, and of the way in which it might be used in corners where gas would be dangerous, and of the saving in decoration. Altogether, there was a good deal to be put on the credit side of electricity, and Mr. Beauchamp had not put his case strongly enough.

Sir Charles referred to certain shop windows where one could not see the goods displayed, but got a very good reflection of people passing in the street. If you put electric light inside you saw the light but nothing else. He wondered if Mr. Beauchamp knew of this, and whether anything could be done to remedy it.

Mr. Beckett, of the Gas Light and Coke Company, thought the difference between the cost of electricity and gas not quite so small as Mr. Beauchamp had shown. Again, coal fire places in bedrooms were looked upon not so much as a provision for heating as for ventilation.

Mr. Marlowe Reade said that for the slaves of the present day, the housewives, for instance, who worked harder than any man, much might be looked for from electricity. He agreed that with new methods of heating, architects would have to devise a much better system of ventilation, and one difficulty about electric heating was that you could not regulate the temperature.

Mr. Beauchamp, replying to a vote of thanks, said that a breakdown, such as the Chairman had referred to, was a fault common to every centralized commodity, and one ran the same risk with gas. The variation of voltage was due to the shortage of copper. They wanted more mains. Regarding Mr. Butler's point about shop-window lighting, he said that to-day illumination was a science, and his Association were doing what they could to show the difference between good and bad lighting. With reference to some uniform charge for electricity, he declared that he would like to see a general domestic tariff, something like that for the telephone. He did not think the difference between the cost of electricity and gas very great, because of the efficiency of electrical apparatus and that of gas, which altered the situation completely. Concerning Mr. Beckett's point that flues were a means of ventilation, surely that was a very expensive way of putting in a ventilator. He had often been impressed with what he called the idle chimney problem. When one came into London by rail one saw a vast field of roofs with chimneys sticking up like stalks of corn. On an average there were four chimneys to one house, and a wisp of smoke coming out of not more than one in four.

With reference to Mr. Reade's objection that one could not vary the temperature for cooking, he said that one could usually get electric ovens with three or four heats. The lighting of the shop-windows referred to by Sir Charles Ruthen was a very interesting problem, and he would call and see for himself what could be done. But, as Sir Charles Ruthen explained that it was in daylight the difficulty arose, he was not quite certain how it could be overcome.

Form of Contract.

The present edition of the Society's form of contract has been sold out, and the document is being reprinted. It will shortly be available at a charge of one shilling per copy.

Books Wanted.

An enquiry has been received from a Member of the Society who is anxious to obtain a copy of "The Evolution of the English House," by S. O. Addy (published in 1905 by Sonnenschein). Any Member who is able to give information as to where a copy may be purchased is invited to communicate with the Secretary, 28, Bedford Square, W.C.1.

The Society of Architects' Lodge of Freemasons.

At the meeting on May 12th, Mr. Henry Paul (M), was elected a Candidate for initiation and Mr. H. W. Bannan (M) and Mr. Claude V. Bisley were initiated. The Rev. T. L. Bullock and Mr. E. E. O. Lawrence were elected as joining Members. One Candidate was proposed for initiation and two for joining. The Worshipful Master Elect is Mr. William Hoe (M), and the Treasurer, Mr. E. J. Sadgrove (M), was re-elected. The two junior Members of the Lodge, Mr. Shirley Knight and Capt. M. G. Kiddy, were appointed on the Audit Committee. The retiring W.M., Major T. Stewart Inglis, D.S.O., is to be presented with a P.M. jewel and bar in recognition of his two years of office. The next meeting (Installation), will be held at the Holborn Restaurant, on Wednesday, November 10th, 1920. Visiting "Members" from other Lodges are always welcome, and are invited to communicate with the Secretary of the Lodge, at 28, Bedford Square, W.C.1.

The Society of Architects' New Articles of Association.

A copy of the Articles of Association showing the proposed revisions and amendments was posted to every Member of the Society on March 9th, and at a Meeting on March 25th a Resolution to adopt the revised Articles was passed, and confirmed at a Meeting on April 15th. The new Articles are reprinted in the Society's JOURNAL for May, 1920, and are now the current Regulations of the Society.

TRANSFERS TO THE FELLOWSHIP CLASS.

Members of the Society elected previously to May 1st, 1920, who are over thirty years of age and have been engaged in the practice of Architecture for at least ten consecutive years, and are still so practising, or who are Fellows of the R.I.B.A., are eligible to make an application for transfer to the Fellowship class. Members elected since May 1st, 1920, have a similar privilege, but cannot exercise it for twelve months from the date of their election.

Application must in the first instance be made on a form to be obtained from the Secretary, accompanied by evidence of qualifications by way of drawings and other testimonies of professional standing and ability as the Council may in each case require.

The Annual Subscription of Fellows is £4 4s., and Members of the Society on election as Fellows do not pay the Entrance Fee of that class.

The first Annual Subscription of all Fellows elected before October 31st, 1920, will be credited to them to October 31st, 1921, so that Members transferred before the first-named date will not pay any increased subscription for the remainder of the present financial year, which is covered by their present membership subscription. The latter, if not already paid, must be discharged before an application for transfer can be entertained by the Council.

THE MEMBERSHIP CLASS.

Members who are not at present eligible to make an application for transfer to Fellowship may do so when they acquire the requisite qualifications.

The Annual Subscription of Members is now £3 3s. as from November 1st, 1920.

Hollow Brickwork.

In the course of a paper read before members of the Clayworkers' Institute, at Olympia, Mr. S. Phillips Dales, M.S.A., says :—

Hollow brickwork has already been applied to walls, floors and roofs. Our need is most urgent with walls, and I propose to deal with that question most in detail, on account of the urgent need for solutions to the problem, and because most of my comments will equally apply in the other sections.

The functions of any external wall are : Firstly, the exclusion of the weather (by which expression we mean both variation of temperature and humidity); secondly, compressive strength to carry any weight imposed ; and, thirdly, flexile strength to resist wind pressure and fracture due to movement of sub- or superstructure.

To deal with the requirements which these functions impose is no small problem. To take that of exclusion of the weather, we had better note what Nature demands of us. We need not trouble ourselves much about the exclusion of wind, despite the fact that a public official at a meeting of The Society of Architects, quite recently, advanced an argument in favour of brickwork, that it had been found possible to sustain life indefinitely in a chamber entirely built in with 9 in. brickwork plastered internally in the ordinary way, on account of the "high porosity" of bricks. But when we consider the question of absorbency we come up against one of the real problems. Our own climate makes its solution an imperative one. Our greatest enemy is in that difficult phenomenon known as "capillary attraction." The conditions favourable to it are a sufficiently absorbent texture, with cavities sufficiently small and adjacent. Given these conditions, it is quite possible to make water "run uphill" on account of the adhesion of particles of moisture to one another. The principle of the syphon illustrates this.

Despite this tendency, however, gravity is one of the preventative weapons. Density is another. In the metallic cavity wall-tie both these weapons are fully employed so long as corrosion of the tie is prevented, and mortar droppings kept off it.

Your hollow brick must be made to absorb considerably less than 10 per cent. of its weight in water if you can manage it, though the test is rather an unfair one, for it is quite possible to have an absolutely non-absorbent surface upon a brick which is very porous indeed. I notice that some concrete block systems have as many as four cavities in the thickness of the section, and I still have my doubts on the score of capillary attraction. You will do better, I think, with a single-cavity block, and you may adopt it, with reasonable care, having due regard to the necessity for compressive and flexile strength. In the width of the cavity lies our chief chance of using the countering force of gravity, for it will admit of "webs" at an upward angle from outer to the inner shell of a sufficient length. If a stream of water be directed against your hollow brick wall the moisture will show along the line of your horizontal web long before it appears on the bed joint, and it will probably not appear at all along the vertical joint, the reason being that the bed joint is invariably provided with some form of groove-and-tongue to give rigidity and strength to the structure. The force of gravity against which absorption has to work in this tongue accounts largely for the delay. In the case of the vertical joint there is no connection between the two "shells" at all. But the half-circular or inverted V tongues are insufficient entirely to counter this absorption. All webs which connect the outer with the inner shell must have a maximum uphill distance and angle compatible with soundness, and when we have thoroughly digested that fact we are on the highway to success.

Our next ally to counter absorption lies in the texture of the surface. It is an admission of weakness to employ so-called "petrifying" liquids after erection, for this always destroys the natural beauty of the brick surface and adds to the general cost.

The wet-resisting surface must be inherent. Sand-faced surfaces, I fear, must go ; at least, until such time as experiment has shown us other ways out of the difficulty.

The question of variation of temperature is exceedingly important. Take the illustration we used above, that of directing a continuous spray of water on the hollow wall surface. If the temperature outside be greatly lowered, and that on the inner space heated, the absorption will be greatly accelerated, so that in the choice of our "metal" we are faced with the necessity of choosing one giving great density on the one hand, and one having the greatest non-conductivity on the other, and the two opposite requirements greatly add to our problems. If, however, the inner surface of a section of high density be highly serrated or so roughened as to create a surface in itself cellular, we shall, I think, find the best way out of our difficulties. It is a well-known fact that feathered and furred creatures will instinctively aërate their coating in cold weather, and by so doing they add to the non-conducting qualities of their covering and so prevent loss of heat outwards.

We now come to the vexed question of the requisite strength of the vertical shells to obtain the necessary strength—both compressive and lateral—and I am inclined to think that the one-third of the total section previously allowed as a maximum cavity by so many authorities was far too stringent, even for concrete constructions. Here, too, the hollow brick scores. Providing it be maintained in a true vertical position, its strength is enormous. Have you ever tried to crush a blown eggshell between thumb and forefinger ? If so, you will realise that a structure apparently so fragile may be enormously strong by reason of its construction.

Along this line it should be noted that walls may be either of equal thickness throughout or formed of piers, between which are panels of much lighter construction. For speed of erection or commercial structures the second-named type will be found to be best. In this case the piers themselves may be of hollow brick tubes filled with a suitable aggregate. Such a construction will stand the most severe tests, and was employed, for this reason, in many of my schemes during the war. It is remarkable with what speed erections can attain under this method. To give a concrete instance, three skilled bricklayers with two labourers put up 260 feet of hollow brick walling, including a damp course, and 8 ft. 6in. high, in five working days. It is possible, if the piers are reinforced by a centre bar, to run the piers up, fix hollow brick floors and the roof exactly as steel-framed buildings are built, filling in the wall panels afterwards.

There need be no fear as regards lateral strength in the wall of even thickness, where a substantial groove-and-tongue system is adopted and a proper "bonding" of the blocks is maintained. In pier walls, however, it will be necessary to tie panel to pier by means of short lengths of light hooping iron wherever the bed joints coincide. The lightest type of hooping iron, such as packing case iron, will be ample. I do not think anything is gained by an elaborate housing system of bonding panel blocks to the piers.

For domestic work, the continuous wall of even section will be best. Much has been lost by over-standardisation. The public of to-day demands houses of some artistic merit and architectural design. I might give instances of hideous hollow brick buildings. You must design your fabric to allow the architect to evolve good designs. You must not tie his hands too severely, but provide him with ample quoins, bonding blocks, reveals, kneelers and the like, so that there is a possibility of keeping the best traditions of ordinary brick walling on the one hand and of masonry on the other, for just as reinforced concrete construction is evolving a style which properly expresses the characteristics of the material used, so must hollow brick buildings evolve a style characteristic to it, and very full attention must be given to it, for it is useless to be merely constructional without due regard to the aesthetic, and I would specially impress this necessity, for, as I have said, I have special reason to do so, and sufficient evidence that it is being overlooked.

One other side of the question of the design of the hollow brick I should like to touch upon. With a view to simplicity of erective work, it would be well to aim at producing an interior surface which admits of one-coat plastering work. I know it is almost too much to ask, yet not impossible of achievement. The problem is greatly increased by that almost inexplicable scientific fact that every mass has an attractive or repellent force over other bodies. How often has one been able to trace every joist or lath in a wall or ceiling. In short, the tiny particles of dust or carbon have been attracted or repelled over a plastered surface exactly where certain bodies have, or have not, occurred behind the plastering. The same kind of polarisation occurs in the proximity of electric wiring, or pipes which vary the temperature of the surface. For similar reasons, every mortar joint of our hollow brickwork will show through the plastering if the problem is not taken seriously in hand.

We may, however, largely mitigate this trouble and the almost equally troublesome one of condensation on the surface of the plastering (which will result owing to the chilling nature of the brick material), by roughening the surface so as to make the density surface temperature and porosity as nearly that of the mortar joint as possible, and this apart from the question of a proper key being given for plastering. Condensation is a problem which has been more serious since the introduction of those admixtures which have made for speed of work and a fine hard surface, although they render the problem of one-coat work on our hollow brickwork more easily effected in other respects.

In conclusion, while acknowledging that many hollow brick floors which are really excellent have been evolved, the roofing question for all but the large public building class yet remains to be seriously tackled by the clayworking fraternity. A hollow reinforced roofing tile forming its own external finishing with artistic merit, is surely not too much to ask when even the loftiest chimney stacks are being formed in hollow brickwork.

Destroyed Wren Churches.

In an article in the *Times* it is stated that of the 91 churches burnt down in 1666, only 57 were rebuilt, and 23 of these have since been demolished. Eight churches escaped the fire, and these are not touched by the Commission. Mr. Philip Norman has written the following notes on some of the Wren churches which have disappeared:

Wren is generally believed to have rebuilt or largely repaired 51 City churches after the Great Fire. Of these St. Mary Woolnoth, not many years afterwards, showed symptoms of collapse, and was rebuilt by Hawksmoor. St. Sepulchre's, repaired by Wren (although this is sometimes denied), has been since altered again and again, so that hardly any of his work is apparent. The porch and lower part of the tower are medieval. So are the lower part of the tower of St. Andrew, Holborn, and the lower part of the tower of St. Mary Aldermary. The Church of St. Mary-le-Bow has a Norman crypt. The body of the Church of St. Dunstan's in the East was rebuilt in the early part of the 19th century.

The first of Wren's churches to disappear was St. Christopher-le-Stocks, taken down in 1788 (?) for an enlargement of the Bank of England ; the garden with a fountain is on the site of the burial ground. St. Michael's, Crooked Lane, made way for the approaches of the present London Bridge in 1851. St. Bartholomew-by-the-Exchange was taken down in 1841, and the Sun Insurance office stands on the site. Some of the fittings were moved to St. Bartholomew's, Moor Lane, built in 1849-50, from the designs of Cockerell, A.A., which of late years has also been destroyed. St. Benet Fink was taken down in 1842-1844, being considered too near the present Royal Exchange.

In 1860 a Union of Benefices Act was passed under the influence of the then Bishop of London, since which attacks on the churches have been more frequent. St. Mary Somerset was the first of Wren's churches removed after the passing of the Act. This was in 1867. The tower remains. In 1867-68 St. Benet Grasschurch (or Gracechurch Street) was demolished, ostensibly for the widening of Gracechurch Street. In 1878 St. Mildred, Poultry, fell a victim. In 1874 St. Antholin's, Budge Row, was destroyed to make room for Queen Victoria Street. St. Michael's, Queenhithe, disappeared in 1875-76 ; All Hallows, Bread Street, in 1877 ; St. Dionis, Back-Church, Fenchurch Street, in 1878 ; and St. Matthew, Friday Street, in 1881.

There was then something of a pause, as the opponents of destruction began to make themselves heard. However, they only delayed matters a little. In 1888, St. Olave's Jewry, was destroyed, or rather part of the walls and the tower remain, the building being converted into a parsonage of several united parishes. St. Mary Magdalene, Knightrider Street, was damaged by fire in 1886, and this was made an excuse for pulling it down not long afterwards. All Hallows, Upper Thames Street, a specially interesting example of Wren's work, having been shorn of its tower in 1876, was pulled down in 1894. In 1897 St. Michael's, Wood Street, was destroyed. This apparently was not a very good example of Wren's work, but on dismantling the tower the lower stage was found to be medieval. The western arch was in almost perfect condition. There is now a water-colour view of it in the Royal Academy. Shortly afterwards—viz. in 1898—St. Michael's, Bassishaw, was destroyed, and here also the medieval remains were important. The last Wren church to succumb was St. George, Botolph Lane, in 1903-4.

From what precedes it is apparent that in rebuilding City churches Wren worked in what he could of previous structures. Several of his existing churches, besides those already mentioned, have undoubtedly portions of medieval walling. This is the case with St. Stephen, Coleman Street, and St. Nicholas, Cole Abbey. Although not so apparent as at St. Andrew's, Holborn, and St. Mary Aldermary, on the ground stages of the towers of St. Anne and St. Agnes and St. Mary, Aldermanbury, are remains of the previous church.

Publicity.

GAS AND ECONOMY IN HOUSING. Reports of the paper read by Mr. H. H. Creasey before the Society at Olympia appeared in the *Gas World* and in other technical journals.

BUILDING EXHIBITION. Articles complimenting the Society upon its enterprise in connection with the Building Exhibition appeared in the *Builder*, the *Architects' Journal*, the *Irish Builder*, and other professional journals.

LUXURY BUILDING. A leading article appeared in the *Glasgow Herald* of 10th May dealing with the subject of Luxury Building and commenting upon the attitude of various professional bodies, including the Society, towards the Government's action in the matter. A further leading article upon the same subject appeared in the same paper two days later.

In further connection with this subject, a report appeared in the *Birmingham Post* and *Birmingham Daily Gazette* of a speech made by Dr. Addison at a public meeting in Birmingham, in the course of which he said that " amongst others who had assailed the Ministry for its policy of limiting building to the building of houses only, was the President of The Society of Architects."

VICTORY SCHOLARSHIP. Reports of the preliminary competition held in the Society's Atelier on 1st May, and photographs of the candidates at work, appeared in the *Observer, The People, Lloyd's Sunday News, The Times, Morning Post, Daily News, Star, Daily Graphic*, and other papers.

BUILDING COMBINES. Further interviews with Mr. Percy Tubbs, and observations upon the knowledge alleged to be in the possession of the Society relating to Combines in the Building Trade, appeared in the *Daily Express* and *Daily News*, as a result of which the President (Mr. Edwin J. Sadgrove), Mr. Percy B. Tubbs (Past-President) and the Secretary (Mr. McArthur Butler), were called upon to give evidence before the Stone, Bricks and Clayware Section of the Profiteering Act (1919) Central Committee.

BUILDING CONTRACT FORMS. An article appeared in the *Evening Standard* to the effect that a deadlock had arisen in the building industry owing to the fact that there were three forms of building contract extant, one belonging to the R.I.B.A., one to the Society, and one to the National Federation of Building Trades' Employers, and that none of these bodies was prepared to concede anything towards a compromise. This statement was contradicted by the Secretary of the Society, who pointed out that the position was that the Building Trades' Employers had invited the Society to express its views thereon, and that the matter was under consideration by a special Committee of the Society.

SURVEYORS' INSTITUTION DINNER. The Society was officially represented by its President at the annual dinner of the Surveyors' Institution, reports of which appeared in the *Times, Daily Telegraph, Morning Post*, and other papers.

HOTEL ACCOMMODATION. Interviews with Sir Charles Ruthen, a vice-president of the Society, on the question of the Government control of hotels, appeared in the *Evening Standard* and *Daily Mail*.

HOUSING. A report of an interview with Sir Charles Ruthen, Vice-president, appeared in the *Morning Post* relating to the causes of excessive costs in housing.

THE CITY CHURCHES. In a report of an interview with the Secretary in the *Daily News* and the *Star* of May 20th, it was suggested that if it became necessary to remove the City churches, they should be re-erected elsewhere. A similar proposal made by the Society in 1903 in connection with the proposed demolition of All Hallows, Lombard Street, resulted in the offer by a landowner of a site and a sum of money.

Notes from the Minutes.

ARTICLES OF ASSOCIATION. The alterations to the Articles of Association have been confirmed and applications are now being received for admission to the several classes of Membership within the Society.

MINISTRY OF LABOUR SELECTIVE COMMITTEES. Mr. F. Rhodes, of Leeds, has been appointed as the Society's representative on the Selective Committee of the Ministry of Labour Appointments' Department in place of Mr. W. S. Braithwaite, who is unable to continue the work owing to pressure of other business.

NATIONAL BUILDING CODE. Following the Conference at Olympia with representatives of the National Federation of Building Trades' Employers, a Committee of the Society has been formed to consider the whole question of a form of building contract, and to enter into negotiations with the National Federation of Building Trades' Employers in regard to the proposed National Building Code.

BUILDING COMBINES. Several members of the Society have given evidence before a Sub-Committee of the Central Committee, formed by the Board of Trade under the Profiteering Act of 1919, to investigate prices, etc., in connection with the Stone, Brick and Claywork trade.

MEMBERSHIP EXAMINATION. None of the candidates who sat for the Membership Examination in April, were able to satisfy the Examiners.

VICTORY SCHOLARSHIP. Twenty-five candidates presented themselves for the first preliminary 12 hour "en loge" competition held at the Society's headquarters, on May 1st. Considerable interest attaches to this competition as being the first of its kind ever held in Great Britain. The Assessors were the Jury of the Royal Academy Ateliers, and they have selected ten candidates to sit for the final "en loge" competition, on June 5th.

STUDENTS' COMPETITIONS. The report of the Assessors in the Travelling Studentship Competition shows that the work submitted was not of a sufficiently high standard to justify any award being made. Under these circumstances, the prize of £25 will be carried forward and added to the Travelling Studentship prize for 1921. There were no entries for the Quarterly Competition for an Essay on "Modern Methods of Building Construction."

BUILDING TRADES EXHIBITION. A report of the proceedings appeared in the May *Journal*. It is hoped that on another occasion, the programme will be of a more comprehensive and better character, and the Society is already in negotiation with the Directors in regard to the matter.

ARCHITECTURAL ASSOCIATION SCHOOL OF ARCHITECTURE., The Council have written to the President of the Architectural Association heartily supporting the educational work of the A.A., and expressing the view that architectural education generally in Great Britain should be controlled by the architectural profession, and not by other bodies. The Society has also expressed its sympathy with the proposal to raise a fund for the Architectural Schools as a memorial to architects who fell in the recent War.

CITY CHURCHES. The Council have had before them the report of the Commissioners, in which a number of City Churches are scheduled for demolition. It was recalled that in 1903, when the Society's opinion was asked as to the proposal to demolish All Hallows, Lombard Street, the Society made the suggestion that if its removal was inevitable, the church should be erected on some other site. An interesting sequel was that an offer was made through the Society of a suitable site near London, together with a sum of money towards the re-erection of the building, and an annual sum towards its upkeep. The Council has issued the strongest possible protest against any interference with the City Churches, and would strenuously oppose any proposition for their destruction, and if their removal becomes inevitable, the Society is still of the opinion that they should be taken down and re-erected elsewhere.

EMPIRE TIMBER EXHIBITION, 1920. On the invitation of the Controller-General of the Department of Over-Seas Trade, the Society has nominated a representative to serve on the Advisory Committee. The Society's representative will be Sir Charles T. Ruthen, Vice-President of the Society.

ARCHITECTS AND SURVEYORS ASSISTANTS' PROFESSIONAL UNION. The Council have had under consideration Resolutions passed by the Union and agreed to by the Assistants' Welfare Committee on the subject of a minimum wage for Architects' and Surveyors' Assistants, and in regard to a special scheme for insurance against unemployment for architects' and surveyors' assistants, on the lines of the Architects' and Surveyors' Approved Health Insurance Society. The Council is not in agreement with some of the details of the proposal for a minimum wage, and the matter is receiving further consideration, but they agree in principle with the proposal to formulate a special unemployment scheme for the profession.

A NATIONAL SOCIETY FOR TESTING MATERIALS. The Society's representative on this Committee reports that owing to certain difficulties, financial and otherwise, the various bodies represented have decided to defer for the present the establishment of a National Society for Testing Materials. In the meantime, a joint Committee will be formed by the Societies interested to go into the work already being done by other bodies in research and testing with a view to preventing overlapping.

ROYAL SANITARY INSTITUTE CONGRESS, BIRMINGHAM. The Society will be officially represented at the Birmingham Congress in July next by Mr. Alfred Long, of West Bromwich.

FIRST ATELIER OF ARCHITECTURE. Mr. de Soissons, who was Sous-Patron of the First Atelier of Architecture in succession to M. Chaures, has since been obliged to relinquish the work owing to his having received another appointment. Pending a permanent successor, Mr. L. H. Bucknell, A.R.I.B.A., has kindly consented to act as Sous-Patron. The Atelier, which is now one of the R.A. Ateliers is open, and for the present candidates possessing certain qualifications can obtain entry to it without examination.

VICTORY SCHOLARSHIP FUND. There is a considerable sum still to be raised in order to provide a capital sum sufficient to produce £100 per annum to provide a prize. Members who have not yet subscribed are reminded that donations of any amount, small or large, will be gratefully received. It is thought that there must be many members who would like to associate themselves with this proposal, and who have not yet signified their intention to do so.

SOCIETY'S STAFF. The Council have received and accepted with great regret, the resignation of Mr. W. E. Wanmer, who has been in the employment of the Society for upwards of sixteen years, during the latter part of which time he had acted as Assistant-Secretary. Mr. Wanmer has obtained another appointment which will give him a wider scope for his abilities, and the Council feel that while the Society will be the loser, Mr. Wanmer is to be heartily congratulated on his success.

Royal Academy Ateliers.

A scheme has been prepared under the general supervision and control of the Royal Academy for the co-ordination of advanced architectural training in a group of Ateliers which will work on the Beaux Arts system. The main purpose of the scheme is to promote the study of design on the lines which the Beaux Arts method has proved to be so valuable, and it is intended to meet the requirements of students who are working in offices during the day-time and who will seldom have more than the evening-time to spare.

Subjects in design will be set periodically, and the drawings submitted in competition between the Ateliers will be exhibited to the public. It is hoped that an annual exhibition of these drawings and of the winning designs in the competitions may be arranged at the Royal Academy. As in the Paris Ateliers, subjects will be divided into first and second classes, and students will be required to win a minimum number of "mentions" in design before passing from the second to the first class. Students who have taken a recognised architectural school course will be admitted to an Atelier without an entrance examination.

The group of Ateliers is controlled by an Atelier Council appointed by the Council of the Royal Academy, and it is expected that diplomas will be granted by the Atelier Council to qualified students in the first class who have passed the necessary tests with distinction. The group will initially consist of "The First Atelier" (The Society of Architects), the Architectural Association Atelier, and the London University Atelier.

As it will be some time before the details of the Royal Academy scheme are sufficiently complete to allow of the scheme being put into operation, the First Atelier has been re-opened on the old lines, with Mr. A. J. Davis, F.R.I.B.A., as Patron, and Mr. L. H. Bucknell, A.R.I.B.A., as Sous-Patron. A syllabus has been drawn up in conjunction with the A.A. Atelier in order that the principle of competition between the various Ateliers may be followed out, and some of the competitions have already taken place.

The subscription is £1 1*s.* per annum, and intending candidates must first satisfy the Patron as to their qualifications. Entry forms can be obtained from the Secretary of the First Atelier, 28, Bedford Square, W.C.1.

NEW CONDITIONS OF ENTRY.

When the arrangements with the Royal Academy are complete, the following will be the new conditions of entry :—

The several Ateliers in London will be federated, and the conditions of entry, scheme of organisation, and system of education standardised, so that while each Atelier will retain its independence and separate existence under the direction of its Patron, it will be one of a group affiliated with the Royal Academy.

Admission. By examination only, to include design, drawing, modelling, mathematics, archaeology, and an oral examination. In the first instance the Patrons will nominate a certain percentage of *present* students to be admitted without examination. Those wishing to have their applications considered must apply in writing to the Hon. Secretary, at 28, Bedford Square, W.C.1, giving details of their architectural education and training and a record of their work in the Atelier, and any awards they may have received.

MEMBERSHIP FEES. Two guineas per annum and thirty shillings for each bi-Monthly Competition, and a fee (not yet fixed) for each Esquisse. All payable in advance.

PRIVILEGES. Candidates qualifying by examination (including those specially exempted by the Patrons' Committee) will be admitted to full membership and be able to participate in all competitions, etc., and to have the advantage of the assistance of the Patron and Sous-Patron, and to compete for the Diplomas, Mentions, Medals, Certificates, and other awards, and will be admitted free to the A.A. and University College life classes.

Other students may be admitted by the Patron pending and contingent on their passing the full membership examination (subject to there being any vacancies). They will pay a membership fee of two guineas per annum as the other students, and may use the Atelier, but will not be entitled to claim the assistance of the Patron or Sous-Patron, and will not be eligible to have their work submitted for competition, or participate in the awards.

NOTE. The maximum number of students in each Atelier will be 30.

METHOD. A candidate after passing the entrance examination is admitted into membership in the *second class*, and when he has obtained a certain minimum of mentions in various subjects, will be admitted into membership in the *first class*. After obtaining a further minimum of mentions he will be eligible to sit for the *Diploma Examination*.

ORGANISATION. There will be a Students' Committee for each Atelier, who will appoint their own Monitors, Librarian, and Hon. Secretary, and will be responsible to the Beaux Arts Committee for the proper conduct of the Atelier under the direction of the Patron and Sous-Patron.

EXHIBITION. Bi-Monthly Exhibitions and criticisms will be held, and a yearly Exhibition of Prize Drawings, which latter will become the property of the Royal Academy Ateliers.

JURY. The Jury will consist of two members of the Royal Academy and the Patrons of the various Ateliers belonging to the Royal Academy group, at present Messrs. A. J. Davis, Professor Richardson, and R. Atkinson.

Present students are strongly advised to register their names for admission under the new Regulations at once as the number to be admitted is limited. No application for admittance can be considered unless accompanied by a remittance of £2 2*s*., the first year's subscription.

Ordinary Meeting.

An Ordinary Meeting of The Society of Architects will be held at 28, Bedford Square, W.C., on Thursday, June 10th, 1920, at 6 p.m., for the election of Members and other routine business.

Students' Competitions.

GENERAL REGULATIONS.

(1) Drawings must be executed on white paper, imperial size, and mounted on strainers or boards, and bear no motto or other mark of identification.

(2) Essays must be written (preferably typewritten), on foolscap single sheets one side only, and pinned at top left hand corner, and bear no mark of identification.

(3) Drawings and Essays must have attached to them a plain sealed envelope containing a declaration signed by the Candidate that the work is his unaided effort, and has been executed within the time allotted.

(4) Drawings and Essays must be delivered carriage paid at the Society's offices, 28, Bedford Square, W.C., not later than 6 p.m., on the day on which the Competition closes, together with any original sketches and notes.

(5) Drawings and Essays will be numbered as received and a corresponding number will be placed upon the Candidate's sealed envelope, which will not be opened until the Competition has been decided.

(6) The Society will not be responsible for the loss of or damage to any drawing or document submitted by Competitors, though every reasonable care will be taken of them.

(7) The Council reserves the right of exhibiting and/or reproducing any of the drawings or essays, and their decision on any point arising out of the Competitions is final and binding on the Competitors.

(8) A Candidate who does not adhere to the conditions and regulations in every particular will be disqualified.

(9) A Scholarship or Studentship may only be held once by the same person.

Quarterly Competitions.

These Competitions are open to Students of the Society who are under 23 years of age on the day the respective entries close, viz., January 31st, April 30th, July 31st, and October 31st ; and who have paid their subscriptions for the current year. Ex-Service Students, may, if necessary, deduct the time spent in H.M. Forces, between 1914 and 1919 from their present age.

The First Prize in each quarterly competition is of the value of £3 3s., with a Second Prize of the value of £2 2s., if more than ten Students compete. The Council reserves the right to vary or withhold the award, which will only be made if the work is, in their opinion, of sufficient merit. Successful competitors may be required before the award is confirmed to produce evidence to the Council as to age.

Quarter Ending, July 31st, 1920, Architectural Sketches to be made between November 1st, 1919 and July 31st, 1920. They must be the unaided work of the Candidate, and must be delivered at the Society's offices not later than 6 p.m., on Saturday, July 31st.

Quarter ending October 31st, 1920, Measured Drawings, consisting of one sheet to one-eighth scale, one sheet to half-inch scale, and one sheet of enlarged details. They must be delivered carriage paid, at the Society's offices, not later than 6 p.m., on Monday, November 1st, together with the original sketches and notes.

Assessors : MESSRS. PERCY B. TUBBS, L. SYLVESTER SULLIVAN, AND HARRY GILL.

Architectural Scholarship.

The Architectural Scholarship, 1920, is offered for Measured Drawings, and the Competition is confined to Students of the Society, who have paid their fees for the current year. The assessors are Messrs. Sir Charles T. Ruthen, O.B.E., Percy B. Tubbs and Professor Adams.

Candidates are required to submit at least three and not more than four sheets of Measured Drawings and Details, of some building of historic interest.

The Drawings are to be prepared between November 1st, 1919 and September 30th, 1920, and must be endorsed, "The Society of Architects' Architectural Scholarship, 1920."

The Scholarship is of the value of £10, and will be disbursed by the Council on behalf of the holder, subject to their approval of the manner in which the Candidate proposes to utilize the Scholarship, or alternatively to the Candidate agreeing to such scheme as the Council may decide upon.

Should the scheme not call for the payment of so much as Ten Pounds (£10) the holder may receive the value of the balance in books or instruments.

The successful Candidate may be required, before the award is confirmed, to produce to the Council evidence as to age.

British Institution Scholarships in Architecture, 1920.

1. The Scholarships are of the value of £50, tenable for two years, and are paid quarterly. This year two Scholarships are offered in Architecture. The examination will take place in November.

2. Candidates for these Scholarships must be not more than twenty-five years of age on November 1st, 1920.

3. Subject to this limitation of age, the Scholarships in Architecture are open to all Art Students who have obtained a Gold Medal, or a Scholarship or Money Prize of the minimum value of £5 in any Art School in the United Kingdom of Great Britain and Ireland.

N.B.—A "free" Scholarship or Studentship does not constitute a qualification to compete.

4. Candidates must submit for examination the following works :—

SCHOLARSHIPS IN ARCHITECTURE :—1. A measured Drawing of a portion of an existing Building, on a half imperial sheet of paper, together with the actual sketches and dimensions from which the Drawing was made. 2. A free-hand Drawing of a Classic or Renaissance piece of ornamental relief Sculpture, on a half imperial sheet of paper. 3. An Ornamental Bridge over the Water of a laid-out Garden or Public Place. The span is to be taken as about 50 ft. nett, and the construction of bridges is to be studied. The height of passage-way beneath is to be about 10 ft. above water-level at the highest point. The bridge is to be roofed in, and its approaches and its entrance façades from the garden, as well as the water façade, are to be designed. The materials can be stone, brick, or concrete, any of these materials being used entirely or combined, or in conjunction with oak timber, and with tiles, lead, shingles, or other roofing. The water can be considered either as a pool or as an embanked river, the banks some 18 in. above water-level. The perspective is to take special account of the composition of the bridge in connection with its imagined surroundings.

All Drawings and Designs must be unframed, and their margins must not exceed three inches.

5. Candidates must send with their works a Certificate, a form of which can be obtained on application to the Trustees by letter only (with stamped and directed envelope enclosed), signed by the authorities of the School at which they are Students, stating the name in full of the Candidate, his or her age (see above, para. 2), and the qualification for competing (see above, para. 3) ; and further stating that the works have been done in the School, and are wholly the competitor's own performance.

This Certificate must also be accompanied by a Certificate of Birth.

6. Both these Certificates, together with the Candidate's private address, must be enclosed in an envelope with the name of the Candidate and the Scholarship for which he or she is competing, clearly written on the outside, and must be delivered with the Candidate's works and not sent by post.

The Birth Certificates of successful Candidates will be retained by the Trustees until their Scholarships have expired.

7. All the competition works must be delivered unpacked, with the name and address of the Candidate written distinctly on the back of each work, either by the competitors themselves, or through an agent, at the Royal Academy, Burlington Gardens entrance, on Wednesday, October 27th, between 10 a.m. and 4.30 p.m. No works will, under any circumstances, be received after that date. All expenses in connection with the delivery of their works must be defrayed by the Candidates.

After the Examination, notice will be sent to each Candidate to remove his or her works within ten days from the receipt of this notice.

8. Candidates who fail to comply strictly with any of the above Regulations will *ipso facto* be disqualified.

9. Every holder of a Scholarship will be required to apply in writing for each quarterly payment one clear fortnight before the quarter-day on which it is due ; and at every half-year—viz., Christmas and Midsummer—to forward to the Trustees, together with his or her application, a Certificate (a form of which may be obtained by forwarding stamped and directed envelope) signed by the authorities of the School at which the holder is a student, stating that the said holder is pursuing the study of the art for which the scholarship was awarded, and maintaining a reasonable standard of proficiency ; or to furnish the Trustees at any time with such other evidence as they may require.

10. The Trustees reserve to themselves the right to withhold any of the Scholarships should the works submitted in competition not be considered by them to be of sufficient merit.

Entrance Examinations.

At the Ordinary and Special War Examinations in April, every Candidate failed to satisfy the Examiners. The Examination Syllabus is under revision, and a new Syllabus will be issued in due course. The next Entrance Examination will be held early in October, 1920.

ELEGRAMS: "CRYPT," WESTCENT, LONDON.
TELEPHONE: "MUSEUM" 942.

The Society of Architects

FOUNDED 1884.
INCORPORATED 1893.

28, Bedford Square, London, W.C.1.

1st July, 1920.

Dear Sir,

THE SOCIETY OF ARCHITECTS WAR MEMORIAL.

"VICTORY SCHOLARSHIP."

After due consideration of a number of suggestions made by Members of the Society, for a suitable "WAR MEMORIAL" it was apparent that the majority favoured a "SCHOLARSHIP IN ARCHITECTURAL DESIGN." The Council thereupon established "THE VICTORY SCHOLARSHIP" of the minimum value of £100, to be open for competition annually, to competitors not exceeding 35 years of age. The competition to be conducted on similar lines to the Prix de Rome and the Scholarship to carry with it the Gold Medal of the Society.

It was believed that Members would support their own recommendation and welcome an opportunity of contributing to a fund which would commemorate in a manner agreeable to the profession and advantageous to the cause of architectural education, the sacrifices which Members of the Society had made in and during the War towards securing Victory.

So far, a sum of only £250 has been contributed by 118 Members which I am quite sure does not represent the number who would wish to be associated with a movement of this kind.

It has previously been mentioned that if every Member subscribed a guinea it would realise over £1,000, but the amount required to provide £100 per annum should approximate £2,000. The donations already received range from 5/- to £50, but if Members will do as their circumstances permit, there should be no difficulty in obtaining the required amount.

TORY SCHOLARSHIP (continued).

		£	s.	d.
1	donation of	50	0	0
2	donations of	10	10	0
2	,,	10	0	0
5	,,	5	5	0
2	,,	5	0	0
3	,,	3	3	0
13	,,	2	2	0
1	donation of	1	11	6
1	,,	1	8	0
67	donations of	1	1	0
3	,,	1	0	0
13	,,		10	6
4	,,		10	0
1	donation of		4	0

The first Victory Scholarship Competition, for which rchitects from various parts of the Kingdom competed, has lready taken place, and the final competition is being held his month, when the prize of £100 and the Gold Medal of the ociety will be awarded to the successful competitor.

The Competition, which is conducted on lines entirely ew to this country, has already attracted a great deal of ttention, and the result of the final competition will be losely criticised by the professional journals, and I submit hat it will be a gratifying climax if, in presenting the ward to the fortunate winner, I am able to state that through he generosty of the Members, the whole of the money required or the fund has been subscribed.

I recognise that this is purely a voluntary matter, and hat its success depends entirely on the goodwill and support f individual Members of the Society, but I feel that those vho have not yet subscribed perhaps through not realising that he subscription list is not yet closed and that the bulk of he money STILL REMAINS TO BE RAISED, may be glad of this reminder.

ICTORY SCHOLARSHIP (continued).

It only remains to add that the true spirit and value of the scheme will be intensified if the name of EVERY MEMBER appears in the list of donors. Only in that way can our MEMORIAL be made worthy of the Society and of its object.

This year I am relinquishing the office of President, to which I was elected in 1916 and I think you will concede that the Society has of recent years accomplished a great deal that is creditable and worthy as a professional Institution, not only for the advancement of Architecture, but also for the benefit of the community, thereby raising the prestige and status of the Society and reflecting credit on every one of its Members.

As your President I am extremely desirous before handing over the Presidency into other hands, to see that this fund has been brought to a successful conclusion, and I feel that I have only to make this personal appeal to secure a liberal response.

As a subscriber to the fund I unhesitatingly ask my fellow Members in all earnestness to make use of the enclosed contribution form without any delay.

Yours faithfully,

Edwin J. Sadgrove

PRESIDENT.

THE

Journal

OF

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The Society is not, as a body, responsible for the opinions expressed by individual authors and speakers.

Architects and Surveyors Assistants' Professional Union.

First National Convention.

The first national convention of the Union was held at the Albany Temperance Hotel, Sheffield, at Whitsuntide, there being present delegates from London, Southampton, Exeter, Birmingham, Cardiff, Liverpool, Manchester, Sheffield, Leeds, Newcastle, Edinburgh, Glasgow and Ayr.

On Saturday evening at the King's Head Hotel, the delegates were the guests of the Sheffield Branch of the Union, when Mr. Arthur James, Lic.R.I.B.A., chairman of the branch, presided over an exhibition of interesting pewter and glassware and a simultaneous informal concert, the items being supplied by the members and delegates.

During the two following days the convention set itself to work in earnest. The chairman of the London Executive Committee, Captain R. G. Ll. Evans, M.S.A., presided in the first instance, and moved the election of Mr. A. J. Penty, Lic.R.I.B.A., as the first president of the Union. He paid tribute to Mr. Penty's high qualities as architect, thinker, social reformer, and, not least, as a man and a Yorkshireman. Mr. J. B. Hector, M.S.A., London, seconded, and sketched the outlines of the work the Union must do under Mr. Penty's presidency. The election of Mr. Penty was hearty and unanimous, and, in thanking the delegates for the honour conferred upon him, he referred briefly to the state of the profession at the present day. He felt there was a work in the movement ; he had wanted to see it come into existence all his life. He did not think there was any profession in which one had to know so much to earn so little, and they were not only worse off in regard to their earnings, but they had not the security that other employments had. The union's first work must be to build itself ; on that everything depended. He looked to the assistants to save the profession and not to the principals ; the former could meet on a communal basis ; other interests divided the latter. There was not the enthusiasm in the profession to-day that there once was, and it no longer attracted that proportion of keen and intellectual young men which a healthy and expanding future demanded. He felt that the economy of the profession was wrong ; it had become too much separated from its base, the building industry. This had led him to advocate the guild idea, now shaping in the Building Trade Parliament and the Building Guilds. Up to now the architectural profession had seemed always to be formulating a policy to bring itself into closer relation with the age, and always managed to put itself further away because it mistook what the age was.

The convention elected the following officers for the ensuing year : Vice-president, Captain R. G. Ll. Evans, M.S.A.; Hon. General Treasurer, R. G. Strachan, P.A.S.I.; Hon. General Secretary, Chas. McLachlan, A.R.I.B.A.; Hon. Organising Secretary, C. F. Overy, M.S.A. (late of Liverpool) ; Hon. Assistant Secretaries, H. Ascroft, Lic.R.I.B.A., R. J. Jones. Also the following to be members of the Central Executive Committee : H. Ascroft, Lic.R.I.B.A., T. Braddock, W. W. Davis, P.A.S.I., R. A. Duncan, J. W. M. Dudding (late of Dingwall, Scotland), R. G. Ll. Evans, M.S.A., P. W. Farmer, J. B. Hector, M.S.A., G. N. Hannan, P.A.S.I., R. J. Jones, A. W. Mather, M.S.A., H. Bryant Newbold, Chas. Pickford, Lic.R.I.B.A., G. S. N. Stone, P.A.S.I., R. Thorburn, and T. W. W. Thornton, any member of a provincial branch executive present in London during a Central Executive meeting to be co-opted for the occasion.

Reports by the secretary and treasurer were received and approved, both pointing out that the growth of the work of the Union would necessitate immediately the taking of its own offices, the employment of permanent assistance, and an increase of the present absurdly low subscription.

The matter submitted to the Assistants' Welfare Committee was reviewed at length and heartily endorsed. With regard to professional education, it was unanimously agreed that this must be wholly in the control of the profession and the building industry, and that the present system of articles and apprenticeship must be gone into. The proposals as to minimum wages were approved, and generally felt to be fair and not excessive. Other matters decided were the imposition of an entrance fee at an early date at the discretion of the Executive ; an increase in the subscription, subject to a ballot of the members ; registration under the Trades Union Acts, in order to give the Union legal status; the setting up of a Divisional Council for Scotland to deal with conditions of employment and to set up an employment bureau, this on the motion of Mr. J. Mitchell, jun. (Glasgow), seconded and supported by Messrs. J. M. D. Henderson (Ayr) and A. H. Lamont, A.R.I.B.A. (Edinburgh). The proposals of the Ministry of Health with regard to "luxury" building were emphatically condemned, and the action of the Executive in the matter endorsed. The practice of local authorities employing non-professional men to do professional work was very severely condemned, as also the very general practice of designating qualified architects and surveyors as draughtsmen instead of as assistant architects or assistant surveyors. The Executive were instructed to watch the interests of non-practising members of the profession under any scheme of registration. It was also an instruction to the Central Executive to prepare a scheme by which the special interests of the members, whether employed in private, Government, municipal, or industrial offices, might best be served.

The convention broke up on the Monday afternoon.

* Industry, Homes and Architecture.

By Thomas Adams, Town Planning Advisor to the Commission of Conservation, Canada.

The ideal state of Emerson and Ruskin—one that seeks first the interests of persons and has as its main objective the culture of men—may be regarded as the ever-present ideal of all thinking citizens in our western democracies. In practice we follow as far behind that ideal to-day as in the day of the New England transcendentalist. But, in considering policies and in advocating reforms it is an ideal we should ever keep in front of us.

It has been submitted that the defects of our social and industrial organisation were the outcome of the too-general acceptance of false economic standards and the absence of moral sentiment in the domain of government ; that co-operation, or what Emerson called the union that is " ideal in actual individualism," was the safe anchorage to be sought for the ship of industry, now storm-tossed in the waters of competition and menaced by destruction on the rocks of ultra-socialism ; that the problems of housing and industry in democratic communities could only be effectively solved by government leadership in extending opportunities for co-operation and in controlling property in land. It is necessary to develop the argument a little further to indicate what is meant by the control of land in relation to industry, homes, and architecture.

Land and Industry.

We are accustomed to think of land as the source from which we obtain all necessities of life, and of human energy and skill as the means by which we convert the products of land to human use. For instance, land grows food, wool, and lumber and provides brick, earth, and mortar ; while the arts and manual labour of the husbandman, lumber-jack, and the lime-burner harvest these things for the benefit of themselves and others. To the most primitive mind this connection between land and primary production is clear.

Under modern conditions of society, however, the production of raw materials from the land is only a half, or less than half, of the industry of a country. The development of manufacturing machinery, and the consequent creation of the factory and the city, has made it difficult to follow the connection between land and the various graduations of production, manufacture, and distribution. While it is easy for us to see the connection between land and wool or cotton, it is not so easy to follow its continued connection with production through all the processes of manufacture and distribution as clothing. Yet the efficiency of these processes may largely depend on the proper location and cost of site of the manufacturing plant ; on the character of the means of communication ; on the health and spirit of the workers in the plant and, therefore, on their homes and surroundings ; and on many other things, all of which, in turn, depend on the way in which land is planned, developed, and controlled

The Objective of Communities in Controlling Land Development.

It should be the objective of progressive communities to plan, develop, and control land for use as an instrument of production. If this is done, health, order, and amenity will result in large measure without conscious effort—since nature demands attention to these three things as a means to secure greater production. The failure

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*From the *Journal* of the American Institute of Architects.

of much so-called town-planning is due to attempts to superimpose conditions which nature demands to promote health, order, and amenity on a weak, artificial foundation of land development that has no regard to these conditions *ab initio.* If we begin from the beginning with the right object in view, that object will be largely achieved by natural evolution ; if we begin with the wrong object, or with no object, our energies will be spent in restricting the worst effects of bad conditions that will follow, and no opportunity will be left for the designing of what is good. Land development may be called the root of the tree of structural development. If the root is unsound, the branches can never be made healthy by trimming. We must begin our town-planning with the proper cultivation of the root, and a great deal of our artificial treatment of the subsequent growth will be unnecessary.

A Scientific Foundation Needed for Land Development and Town-Planning.

It is apparent to the student of land development in town and country that before the education of the masses can be begun there must be a science to teach and men to interpret the science. What is the extent of our equipment in the science of development of land for purposes of industry ? We have a growing literature, and there has been much unco-ordinated study and experiment in city-and town-planning. Some of the universities are nibbling at the subject, and a group of specialists is emerging from the architectural and engineering professions. On the whole, however, we have only the beginnings of a science and no adequate scientific equipment. It is generally recognised that the study of underlying conditions must precede the preparation of a plan of a city, but to many this consists of merely studying the existing physical conditions of the locality to be planned. Something deeper and wider than that is needed for purposes of scientific investigation and for arriving at settled principles. The social and political aspects of land development and industrial organisation as a whole need to be investigated and analyzed.

What we want in relation to land development and town-planning is what Huxley describes as the " growth of knowledge beyond imaginable utilitarian ends which is the condition precedent of its practical utility." Huxley was writing of the progress of science in relation to the processes of manufacturing industry. He referred to the awakening of the captains of industry to the value of science and continued :

" It has become obvious that the interests of science and of industry are identical ; that science cannot make a step forward without, sooner or later, opening up new channels for industry ; and on the other hand that every advance of industry facilitates those experimental investigations upon which the growth of science depends. We may hope that, at last, the weary misunderstanding between the practical men who professed to despise science, and the high and dry philosophers who professed to despise practical results, is at an end."

It is true that the practical men have become convinced of the value of science within the factory ; it is also true that they still despise science in relation to the urbanized social organisation which industry has created outside the factory. Yet science is as much needed to build up that social organisation as to develop the mechanical processes of industry. When the captains of industry are sufficiently awakened to that need we shall have more reliance placed by them on constructive methods of land and town development, on promoting healthy living conditions in home and factory, and on the application of preventive measures to social evils as a means of raising the standards of civilisation.

But the education of the captains of industry, the politician, and other leaders of men must be preceded by further education of those who practice the art of city- and town-planning particularly in the investigation of the underlying factors that have to form the foundation of city- or town-planning as an art. Whether our problem is to build a new city or to replan the building of an existing city, we must have regard to control of land—and to the principles that constitute its proper use for health, order and amenity. It is these principles—and not the so-called principle of expediency, as Mr. Ackerman has said—that should guide us in the practice and policy of city-planning. They are the principles that in the long run are sound from the point of view of practicability, as well as of ethics, for they conform to the demands of nature—and nature is a tyrant whose law we cannot despise with impunity.

The art of city- and town-planning is being developed in our schools of architecture and landscape architecture—but without adequate scientific data as a basis. Until we know more of the underlying facts and their mutual relation, we shall continue to draw conclusions from wrong premises and waste much of our time and energy. The research that is needed cannot be undertaken without large funds. Extensive regional surveys need to be made in all areas of special character, and particularly in industrial areas. We need investigation of :

(*a*) The origin, working and results of different systems of land development ;
(*b*) The proper or improper forms of zoning or classification of industries and residences ;
(*c*) The relation between industry, dwellings, and transportation ;
(*d*) The tendency of manufacturing plants to penetrate new areas and the problems thereby created ;
(*e*) The best economic uses of land in given localities ;
(*f*) The standards needed to govern the character and density of structures for different purposes ;
(*g*) Housing—comprising sanitation, convenience for places of employment and amenity ;
(*h*) Forms of transportation ;
(*i*) Sources and forms of distribution of power ;
(*j*) Water supplies and sewerage schemes in relation to regional areas as distinct from arbitrary local areas ;
(*k*) General amenities—parks and boulevards.

The rational order in which these things should be studied and the geographical limits of areas is a matter for preliminary consideration. The immensity of the problem is indicated by the above short summary, but the importance of dealing with it in a comprehensive way, in spite of its size and complexity, is proved by the futility of the results achieved by the practice of city-planning in separate compartments, with too much regard to expediency.

STATE LEGISLATION.

The mere setting up of planning commissions in cities will not go far to achieve effective planning and control of development. State legislation, to give adequate power to local councils and to facilitate co-operation between councils in adjacent areas, and state assistance in making comprehensive regional surveys are needed. There is no necessary power required for city or regional planning that cannot be given to local authorities in America, subject to joint action of the state and the local authorities. Nor is there anything objectionable in the state legislation needed for this purpose, or in the joint action which is desirable, to the advocate of more local autonomy.

Land cannot be effectively controlled without special state legislation—nor without means to permit and even to enforce some form of joint action of incorporated bodies in regional or metropolitan areas. Special powers are needed to enforce any scheme effectively ; to secure for the community part of the increased value given to land or buildings by the making or execution of a scheme ; to make zoning regulations permanent and elastic and not capable of being overridden by the caprice of changing personnel of local councils ; to acquire land compulsorily without cumbersome or expensive procedure, including land in excess of what is needed for a particular improvement ; to do all things necessary *according to modern standards*, for health, safety, and injury to private rights—that are in conflict with these things ; to prevent building on unsuitable land and to classify such land for reclamation, agriculture, parks, or other purposes.

In the subsequent preparation of schemes, comprehensive areas should be chosen, no new sub-division of land should be permitted within the area unless where approved by a city-planning commission, and, where possible, the commission should co-operate with owners of land to obtain a revision of existing sub-divisions that are not properly planned.

ARCHITECTURE AND CONTROL OF LAND DEVELOPMENT.

Order in planning land postulates order in buildings. Architectural incongruities in cities are more often than not the indirect results of bad beginnings in land develoopment. The architect, professionally as well as a citizen, is interested in securing a sound system of land development, implying as it does the control of the use of land for health, order and amenity. It is erroneously assumed by some that the interests of the architect in city-planning are confined to the design of the buildings, and that all surveying and engineering work in connection with the plan can be completed before the architect is called in to take part. No satisfactory plan of land dealing with the street system, the lot sub-divisions, the building-lines and densities, the classification of land for different purposes, can be prepared by any person or group of persons however skilled, unless they have the capacity to visualise the structural development to follow the plan.

In the absence of an architect in the group of specialists preparing a plan, there should be someone having vision and artistic feeling and some degree of knowledge of architectural forms to adjust the plan to suit the completed development. The safer thing is for the architect with town-planning sympathy and training to be one, if not the dominating figure of the group.

The architect is a creator of buildings according to plan. The utility as well as the beauty of the structure he creates depends, not merely on its form and the correct proportion of its parts, but also on its conformity to purpose and natural laws and its harmony or propriety with its surroundings. An architect engaged in building in a city, town, or village must also be a town-planner, for he is creating a part of a community structure. No matter how able he may be in his art and dominant in his personality, he is the slave of natural law. His freedom of expression is limited by nature.

Being the slave of nature himself, he should not be required to compromise with artificial conditions of land development that are laid down for him by others who have ignored nature. What is meant here, as already indicated, is not merely the physical conditions of nature, but the conditions imposed by nature as the price of health and amenity. When a surveyor or landscape engineer prescribes the layout of land in some rectangular, radial, or other geometrical form, without regard to either topography or human purpose, he is creating artificial obstacles for the architect as well as for the engineer and the community. The architect cannot overcome these obstacles ; he has to make compromises with them. He may design houses to look well on lots 25 feet wide and with adequate provision for air-space and light, but here again he is compromising with artifical limitations that are imposed by others without adequate reason, except that of facilitating profit-making out of the sale of the land or that of suiting an engineering or landscape purpose that has no regard to structure of building. The architect has therefore a duty in connection with the control of land development, and an interest in promoting that control. The real foundation of his structure is not the piece of land on which he builds, but the general system of laying out the land for industries or homes.

It is not so essential that the architect be the town-planner as that his opportunities to comply with natural law, and have freedom of expression subject to that alone, be not restricted by artifical limitations imposed by any plan of the land. His own compliance with that law should not be hindered by non-compliance with natural conditions of those who plan the land.

Nor should the architect himself forget that when he becomes town-planner he has to become a dual personality. As architect of a building he should have freedom to express himself and to pursue his own ideals as an artist ; as town-planner he has to express not himself nor his own ideals, but the purposes and ideals of the community through himself.

Finally his share of responsibility for laying a saner and more scientific foundation for the development of industry and homes depends, with him as with all, on the knowledge that is power.

Registration of Architects, Engineers, and Surveyors.

In view of the activities of the Institution of Civil Engineers and of the Surveyors Institution in the direction of Registration and of a suggestion that has been made for an omnibus Registration Bill for Architects, Engineers and Surveyors in this country; the proposals of the American Association of Engineers as set out in *The Professional Engineer* for a Uniform Registration Law for the three professions in America will be read with interest.

ENGINEERING COUNCIL'S LICENSE LAW.

A recommended Uniform Registration Law which has been under preparation by a committee of fifteen engineers appointed by Engineering Council, and is particularly interesting in that it provides for the regulation of the practise of engineering, architecture, and land surveying, whereas the bills which have been passed by various states in the Union with one or two exceptions only regulate the practise of one or two of these three vocations.

According to the report of the committee, ten states, Colorado, Florida, Idaho, Illinois, Iowa, Louisiana, Michigan, Nevada, Oregon, and Wyoming, have enacted laws licensing or registering engineers, and other states are likely to enact similar laws during the coming or present session of the legislatures. In addition to these ten laws governing engineering practise, there are six states that require licensing or registration of land surveyors, and in eighteen states, California, Colorado, Florida, Idaho, Illinois, Louisiana, Michigan, Montana, New Jersey, New York, North Carolina, North Dakota, Oregon, Pennsylvania, South Carolina, Utah, Washington, and Wisconsin, laws have been passed licensing or registering architects. Some of the ten laws regulating the practise of engineering " are so drawn as to include both engineers and surveyors, and some include engineers and architects, and one or two include engineers, architects and surveyors. Moreover, these laws are not at all uniform and in several instances are likely to prove seriously embarrassing and annoying to engineers whose activities extend beyond the limits of a single state. Because of the nature of professional engineering work the practise of an engineer frequently extends over several states and therefore it is vitally important, if there are to be state regulations for engineering practise, that these regulations be made uniform so far as possible and that the engineering profession unite in wisely directing such legislation.

"As stated, laws have been passed in eighteen states for licensing or registering architects and the American Institute of Architects has endorsed and advocated such legislation, considering that both the architects and the general public are benefited thereby. Unfortunately, some of the laws for licensing architects have been so drawn as seriously to interfere with legitimate engineering practise and the 'model law' proposed and advocated by the American Institute of Architects' contains definitions of 'architecture' and 'building' which, should such laws be passed and enforced, would prevent anyone, but a 'registered architect' from planning or supervising the construction of any structure or any of the appurtenances thereto ; consequently under this head would come a structure having simply foundations and girders, whether 'with or without appurtenances.' Under this model law proposed by the American Institute of Architects no one but a registered architect shall prepare plans for or supervise the construction of a building, and a 'building' is thus defined in section 19 :

> 'A building is any structure consisting of foundations, floors, walls, columns, girders, and roof, *or a combination of any number of these parts*, with or without other parts or appurtenances.'

"Since none but a registered architect shall have the right to design or supervise the construction of any structure or any *appurtenance thereto* this matter becomes of vital importance to mechanical, electrical, sanitary, and mining engineers, as well as to structural engineers.

"In the State of Illinois a similar law for licensing architects was passed several years ago, the rigid enforcement of which, made it necessary for engineers to unite in having a 'structural engineers' license law passed by the legislature, and now there are two laws in force in Illinois, one for architects, the other for structural engineers.

"In some states the laws enacted and proposed are intended to regulate the practise of architecture, while in the other states laws have been enacted the purpose of which is simply to protect the term 'architect,' but not intended to regulate the practise of architecture. In Wisconsin and several other states no one may use the title 'architect' without first obtaining from the state a certificate of registration as a 'registered architect,' but anyone not an architect may prepare plans and supervise construction provided he does not style himself an 'architect.'

"Therefore, this committee at its meeting of October 13th, 1919, adopted unanimously the following resolution :

> 'Motion : The following is the sense of this committee relative to the desirability of a law licensing or registering engineers : Resolved : The enactment of legislation to provide for the registration of professional engineers is desirable and necessary. Ten states already have enacted such legislation. Laws licensing architects have been enacted in several states and similar laws endorsed by the American Institute of Architects are pending in several other states, which, if enacted, would prohibit engineers from continuing their customary and recognized practise. . . . Carried unanimously'.

"This committee has made a very careful study of definitions for 'engineer,' 'engineering,' 'architect,' and 'architecture,' but it was found that any definition for engineering would be so general as to include too much or too specific to be sufficiently general, or too voluminous to be suitable to incorporate in a law. Some have endeavoured to include in a definition of "engineering practise" all sorts and kinds of construction work, but engineering includes investigations as well as plans and no catalogue can well be prepared sufficiently detailed to include all sorts of engineering activities. It will be seen that both engineering and architecture are broad terms involving construction and necessarily there can be no sharply drawn distinction. Architects in the broadest sense are engineers even if usually architecture is associated with ideas of artistic or decorative features. Architects are eligible to membership in the American Society of Civil Engineers and several architects are members.

Justification for Registration.

"The only basis on which the practise of any profession may be subject legally to state regulation is 'in order to safeguard life, health and property.' The state may not dictate that no one without a particular kind of artistic talent nor without a tenor voice may practise engineering or architecture, but it may legally require that no one shall practise architecture or engineering who is ignorant of the effects of loads and applied forces or incapable of determining the stresses in structures due to loads and applied forces and unable properly to proportion materials in structures to safely sustain such loads and forces.

"Land surveying does not involve matters that would ordinarily jeopardise life and health, but property rights are vitally affected by land surveying, and many states have deemed it essential to place restrictions and safeguards about the practise of land surveying. Land surveying is associated with both engineering and architectural practise.

Law Should Include Architects.

"This committee has therefore deemed it advisable and in the interests of all concerned to include in one law provisions for the registration of engineers, architects, and land surveyors. It has recognised that the practise of engineering and architecture overlap in many instances, especially in connection with the larger projects of modern structures, where many branches of the arts and sciences are combined, involving architecture, structural, mechanical, electrical, sanitary, and other lines of engineering.

"There are ample reasons why architects alone should judge as to the qualifications of those desiring to practise architecture and why engineers alone should pass upon the qualifications of those desiring to practise engineering. Hence a bill for legislation has been drafted by the committee along these lines and it is confidently hoped that the objections expressed by the American Institute of Architects against laws which might provide jointly for the registration of engineers and architects will be overcome by the terms of the bill herewith submitted."

Excerpts From the Bill.

"*Section* 1 of the law states that " in order to safeguard life, health and property any person practising or offering to practise professional engineering, architecture or land surveying in this state shall hereafter be required to submit evidence that he or she is qualified so to practise and shall be registered as hereinafter provided.

" *Section* 2 : Nothing in this act shall be construed as requiring registration for the purpose of practising professional engineering, architecture or land surveying by an individual, firm or corporation on property owned or leased by said individual, firm or corporation unless the same involves the public safety or health."

A state board of registration is provided of seven members, appointed by the governor, of which three members at least shall be professional engineers and at least three members shall be architects.

" *Section* 9 : The board shall, on application therefore on prescribed form and the payment of a fee issue a certificate of registration : To any person who submits evidence satisfactory to the board that he or she is fully qualified to practise professional engineering, architecture or land surveying.

"In determining the qualifications of applicants for registration as architects, a majority vote of the architect members of the board only shall be required ; and in determining the qualifications of professional engineers or land surveyors, a majority vote of the engineer members of the board only shall be required.

UNLAWFUL ACTS AND PENALTIES.

" *Section* 12 : Any person who after this act has been in effect ——— months is not legally authorised to practise professional engineering, architecture or land surveying in this state according to the provisions of this act and shall so practise, or offer so to practise in this state, shall be deemed guilty of a misdemeanour and shall for each such offence of which he is convicted be punished by a fine, or by imprisonment for three months, or by both fine and imprisonment. However, nothing in this act shall be construed as excluding any registered architect from the practise of professional engineering or as excluding any registered professional engineer from the practise of architecture.

CORPORATION OR PARTNERSHIPS.

" *Section* 14 : A corporation or partnership may engage in the practise of professional engineering, architecture or land surveying in this state, provided the person or persons connected with such corporation or partnership in charge of the designing or supervision which constitutes such practise is or are registered as herein required of professional engineers, architects and land surveyors. The same exemptions shall apply to corporations and partnerships as apply to individuals under this act.

PUBLIC WORK.

"*Section* 15 : One year after this act goes into effect, neither the state nor any county, township, city, town or village, nor other political sub-division in the state, shall engage in the construction or maintenance of any public work involving professional engineering or architecture for which the plans, specifications and estimates have not been made by, and the construction and maintenance supervised by, a registered professional engineer, or a registered architect ; provided, that nothing in this section shall be held to apply to such public work wherein the contemplated expenditure for the completed project does not exceed two thousand dollars.

LAND SURVEYING.

" *Section* 16 : Land surveying as covered by the act refers only to surveys for the determination of areas or for the establishment or re-establishment of land boundaries and the sub-division and plotting of land. Nothing in this act shall be construed as prohibiting registered professional engineers or registered architects from making land surveys where such surveys are essential to engineering or are architectural projects."

The report of the committee concludes with a discussion of the relation of the engineer to the architect by Francis C. Shenehon, who states that " the architect's model bill can never become a law in any state where engineers are awake to the menace of its provisions," and in which he shows that it is only an accident of name evolution that has tended to segregate engineers and architects into two classes of master builders. " It may be thought that initiative and imagination are the qualities of architects," says Mr. Shenehon, " while engineers deal with the prose of construction. Actualities will reveal, however, the fact that 80 per cent. of the architecture of our cities is commonplace, with no peculiar beauty or originality. . . . Architects must recognise that scientific imagination is on the same high plane as their own best creative thought ; and engineers must consider the esthetic contribution of architects in adding to the durable satisfactions of life. Both are creative workers."

Notes from the Minutes.

NATIONAL BUILDING CODE. A Committee of the Society which has under consideration the whole question of a form of Building Contract is in negotiation with the National Federation of Building Trades Employers in regard to the proposed National Building Code, and a meeting of representatives has been arranged to deal with this question.

LUXURY BUILDING. A letter from the President, which appears elsewhere in this issue, has been issued to the Press.

A copy of a communication to the Press on the same subject has been received from the Architects and Surveyors Assistants' Professional Union, and the Council of the Society has expressed its sympathy with the points put forward.

LONDON GUILD OF BUILDERS. A copy of the preliminary prospectus of the London Guild of Builders has been received from the National Federation of Building Trade Operatives, and the Council of the Society has expressed its sympathy with the movement.

HOUSING FEES. Representatives of the Society and of other interested bodies have been in consultation with the Ministry on the question of fees paid to architects in conjunction with State-aided Housing Schemes. Certain amendments have been proposed, and the matter of agreeing to the final details was left to the Accountant-General and to a representative of the Society, the R.I.B.A., the Scottish Board of Health, and the Institute of Scottish Architects. The amended scale as agreed by these representatives will shortly be officially issued.

INTER-ALLIED HOUSING CONGRESS. At the Inter-Allied Housing Congress held in London during June the Society was represented by the President, Mr. Edwin J. Sadgrove, who was also a Vice-President d'Honneur of the Congress, and by Sir Charles Ruthen, Vice-President, and at the Garden Party given at Hampton Court Palace by H.M. Government to meet the foreign delegates to the Congress Sir Charles Ruthen represented the Society.

BEAUX ARTS WAR MEMORIAL. A letter was received from the Ministry of Education in France thanking the Society for its donation of 1,000 francs to the fund for the erection of a memorial to fallen students of the Ecole des Beaux Arts.

MEMBERSHIP EXAMINATIONS. The report of a special Sub-Committee appointed by the Council to prepare a scheme for the re-organisation of the Society's examinations for Membership has been adopted, and its recommendations will be published in due course for the information of Members.

ASSISTANTS' WELFARE COMMITTEE. A request has been made by the Assistants' Welfare Committee for the Council of the Society to receive a deputation to discuss certain resolutions passed by that body. It is hoped to receive this deputation after the summer recess.

ROYAL SANITARY INSTITUTE CONGRESS, BIRMINGHAM. The Society will be officially represented at the Birmingham Congress during July by Mr. Alfred Long, of West Bromwich.

POINTS OF PRACTICE.—Various points of professional practice, chiefly in regard to fees, have been considered and dealt with by the Practice Committee during the past month.

NEW MEMBERSHIP CERTIFICATES. The formation of the new classes of Membership necessitated a different type of Membership Certificate. The new certificates will be issued to those concerned in due course.

Victory Scholarship, Competition and Fund. There is still a considerable sum required to provide a capital sum sufficient to produce £100 per annum to provide an annual prize. The attention of Members is especially drawn to the letter from the President on the subject which accompanies this issue.

Ten candidates were selected by the Jury of the Royal Academy Ateliers to sit for the Final Competition, the preliminary twelve-hour esquisse for which was held on June 5th, at 28, Bedford Square, W.C. Eight of the competitors completed their preliminary sketches, and their final designs will be assessed by the Jury.

Empire Timber Exhibition. The Society is represented on the Advisory Committee of the Empire Timber Exhibition, which is being held during July, by Sir Charles Ruthen, Vice-President.

" Daily Mail " Ideal Village. The Society was invited to send a representative to the opening ceremony at the site of the *Daily Mail* Ideal Village at Welwyn.

Addresses Wanted.

Members.

The Society's Journals sent to the following Members, etc., have been returned through the post marked " Gone away." The Secretary will be glad to hear from anyone who can put him in communication with any of these Members.

C. A. Aish (London), H. C. Anderson (Heywood), J. Bevir (Lymington), G. A. Birkenhead (Vancouver), W. G. Campbell (Transvaal), A. E. Chasemore (Upham), F. Clemes (Grimsby), P. Rogers Cooke (Germiston, South Africa), E. N. Cubitt (Brentwood), A. H. Davies (Newport, Mon.), C. G. Davies (China), G. W. Davies (Grimsby), J. L. Donnelly (Dublin), R. K. Fearnside (Wembley), S. A. Hall (London), J. M. Hatfield (Barnes), F. W. Higginbotham (Dublin), T. J. Holland (London), R. R. W. Hyde (Worthing), H. Jackson (London), David J. Jones (Ealing), A. E. King (Mansfield), W. E. Knapman (Exmouth), W. Leicester (Manchester), R. T. MacArthur (Birmingham), J. N. K. McKilliam (London), Cecil T. Mitchell (Johannesburg), A. T. Parker (Lewes), A. C. Payne (London), R. T. Perry (Vancouver), Ernest Rose (Rhodesia), C. D. Rutter (Wrexham), J. B. Sanders (Crawley), S. N. Shrimpton (Cardiff), P. H. Solon (Walsall), J. A. Souttar (London), C. F. Stevens (London), A. D. Stewart (Edinburgh), D. G. Tanner (Lewes), J. J. Taylor (Darlington), T. G. Williams (Liverpool).

Students.

A. C. Bedington (Newquay), Leonard Cavanagh (London), W. M. N. Haigh (Baildon), Arthur Oates (South Shields), W. G. Parkin (Hampstead), C. H. Roberts (London), J. R. Thomas (Colchester), S. E. Urwin (Birmingham), R. C. Vander Schyff (Pretoria).

Victory Scholarship Fund.

There is still a large amount to be raised in order to provide a sufficient sum for investment for the purposes of the Scholarship, which is to provide a prize of £100 annually. The special attention of every member is drawn to the President's letter which accompanies this issue. Donations should be sent to the Secretary of the Society of Architects, 28, Bedford Square, W.C.1.

* The Inter-Allied Housing and Town-Planning Congress.

Delegates representing some twenty-five Allied nations and Colonies assembled at the first meeting of this Congress at the Central Hall, Westminster, on Thursday last week.

The proceedings were opened by Dr. Addison (Minister of Health), who, after referring to the provisions of the Housing Acts and the progress made in housing in this country up to the present, said that great difficulties had still to be overcome. The cost of the houses was very high, and the shortage of labour was becoming even more acute. But these difficulties were being faced with the determination to overcome them, and it might be necessary to exercise the powers to limit building operations other than housing even more than they were being limited at present. Considering all the difficulties, he thought the progress made in this country was very creditable.

Short addresses relative to the objects of the Congress were then delivered by a number of delegates. Monsieur Sellier (Secretary of the *Union des Villes*, France) said that to a certain extent the conditions in France were different from those in this country, as the population was more of a rural one. In the large towns and the northern industrial areas, however, the housing accommodation was very bad, and this was reflected in the prevalence of tuberculosis and other diseases. In the devastated areas more than 100,000 houses had disappeared, and during the delay in building new houses disease was making headway. Commendatore Camanni spoke on behalf of the Italian delegates, and the Spanish Ambassador for the Spanish delegates. The latter mentioned that the schools of architecture in Spain had devoted special attention to town-planning. The municipalities were also taking an interest in the matter, and perhaps the most remarkable town-planning scheme was that of Madrid, which had received the approbation of the Spanish Parliament. There was a tendency amongst architects throughout Spain to use new methods of building and new materials, many of which were merely modifications of existing materials to modern types of buildings. Unfortunately, the climate and the habits and customs of the people in different parts of the country varied to such an extent that it was extremely difficult to adapt one type of house which would be generally suitable. There was now before the Spanish Parliament a credit vote for 25 million francs, to be advanced to co-operative building societies.

THE PROBLEM IN AMERICA.—Mr. Veiller (Secretary, The American Housing Association) said that the great developments in housing in England had led the world ; the interest taken in working-class dwellings in England had developed the most beautiful types of domestic architecture that the world had ever seen. The same difficulties of the shortage of houses and the high cost of labour and materials were being encountered in the United States as elsewhere. There was no Government housing or Government aid for housing in that country. They believed that housing was a matter for private enterprise and that the working-man should pay an economic rent ; any suggestion that the working-man could not provide his own house, as much as he provided his own food and clothes, would not be tolerated. A very large number of American workmen owned motor-cars, and one of the problems in the erection of new houses was whether the garage should be built to hold one or two cars ! Although the American workman was receiving very high wages, he seemed unwilling to pay increased rent.

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* Reprinted by permission from *The Builder*.

THE BELGIAN PROBLEM.—Senator Hinck (Head of the Belgian National Housing Society) said that Belgium had not only to cope with the difficulties caused by the destruction of 100,000 houses during the war, but also with the fact that the stoppage of building during the war resulted in a further deficit of 120,000 houses. Other important factors were the great shortage and increased cost of building materials ; for instance, bricks had increased in the proportion of from 9 to 60 ; cement, from 35 to 150 ; iron, from 10 to 125 ; and wood, from 50 to 500. A further difficulty was finance, and although Brussels had to build houses the city already had a debt of £50,000,000. The working-classes were in a terrible position and could not be asked to pay more than one-fifteenth of their wages in rent. The Government was granting a loan of 100 million francs, at 2 per cent. interest, to the National Housing Society, and in addition a subsidy of 25 million francs was being given in respect of the first 5,000 houses erected. The provincial councils were also giving 15 million francs for housing purposes.

Several other foreign delegates gave brief particulars of housing conditions in their respective countries, and the measures which are being taken to overcome the shortage.

STATE *v.* PRIVATE ENTERPRISE.

In the afternoon session the following resolution was put to the meeting : "That, in the opinion of this Congress, legislative action in the preparation of a national housing policy should be taken by each Government (with, wherever necessary, special financial provisions relative thereto), such programme to be carried into effect on lines of co-operation between the Government on the one hand and local authorities and other agencies—including private enterprise—on the other. Further, this Congress is of opinion that such a housing policy should be sufficient in its scope and character to secure that within the limit of twenty years every family shall be housed under proper conditions with adequate provision for amenity in regard to surroundings."

The principle of the resolution was generally agreed to, but several delegates expressed the opinion that private enterprise should be ruled out altogether.

Councillor Shawcross (Chairman, National Housing and Town-Planning Council) said he was glad to see that the State had taken action in the matter of housing. Private enterprise had been responsible for most of the bad housing in the past, although this was due to the fact that the public would only pay very low rents.

Dr. Royal S. Copeland (Commissioner of Health, New York City) said that in New York there were 30,000 tenement houses, built to hold up to 50 families each, and these buildings now, in hundreds of cases, housed double the number of people they were built to contain. They were endeavouring to secure the remission of taxes on new houses and improvements for housing purposes during the next 15 or 20 years in order that houses might be built at a cost to compete with houses already built; they were also trying to get the municipalities to erect houses, and to prevent the erection of theatres and places of amusement on land occupied by houses.

Mr. James Smith (Chairman, Newcastle-on-Tyne Housing Committee) moved an amendment that the words, " and other agencies—including private enterprise," be deleted from the resolution. This was seconded by Mr. Slim (Chairman, Northampton Housing Committee). Mr. J. Page (South Shields) and Monsieur Vosse (Belgium) supported the resolution, the latter stating that in Holland the private builders were working in co-operation with the Government. Miss Bushell (Garden Cities Association) pointed out that if the amendment were carried the public utility societies would be barred from carrying out building work. Monsieur

Bagge (Vice-President, Stockholm City Council) said that the Swedish Government, which was a Socialist Government, proposed to carry out housing schemes in co-operation with the municipal authorities and private builders. He did not think that 20 years was sufficient time to allow for the proper housing of every family. The Swedish legislature recognised that the responsibility for housing should rest with the Government. Mr. Ebenezer Howard spoke against the amendment. If the Government was at all wise, he said, it would not co-operate with private enterprise in building houses that would be a disgrace. They were anxious to build all the houses possible ; to attempt to rule out any body of persons who were anxious to build houses for the people would be suicide. Monsieur A. Augustin Rey (Membre du Conseil Superieur des Habitations Ministere du Travail, France) said that the State was built up on family life, and it was essential it should be recognised that family life was the base on which the proper well-being of the State depended. He hoped that the amendment would not be carried.

The amendment was rejected, and the resolution carried by a large majority.

THE STANDARD OF HOUSING.

At the opening of the second day's proceedings Monsieur Breton, French Minister of Health, occupied the chair.

Mr. Aldridge (Secretary, National Housing and Town-Planning Council), before the opening of the meeting, read a letter from Mr. Lloyd George (*President d' Honneur* of the Congress), in which the opinion was expressed that employers should consider it a solemn duty to see that their own employees were adequately and happily housed.

Monsieur Breton referred to the unhealthiness of bad housing and urged that immediate action must be taken with the same firmness and tenacity which had been shown in the prosecution of the war. The best method of securing better housing was to encourage and develop new methods of construction and new materials. At the present time in France there were 453 societies for cheap housing, 82 land credit societies, 38 public offices for cheap housing and 25 other offices in the process of formation. To bring their projects to a successful conclusion they must have public opinion with them.

A representative of Norway said that proper housing of the people should be a national duty. In Norway a form of socialisation of rents had been agreed upon, namely, that every family should pay one-fifth of its income in rent. That meant that a family with an income of 2,000,000 kroner would pay 400,000 kroner in rent. This scheme would balance the rents, and would, he thought, result in something like a solution of the problem.

The following resolution was then put to the meeting :—

" That this Congress, whilst recognising that the standards and types of dwellings must be determined by each country in relation to its climatic and other conditions, places upon record its conviction that each family in a civilised community possesses an inalienable right to a minimum standard of comfort in the home. Further, that this Congress, whilst of opinion that the detailed definition of this standard is a matter for national determination, places on record its clear and definite views that in the home for a family there shall be provided as a minimum of civilised need : (*a*) a bedroom for the parents and sufficient sleeping rooms to separate the sexes of children as they grow up ; (*b*) separate sanitary accommodation for each family; (*c*) adequate bathing accommodation for every family, either in each house or in accordance with the custom of the country concerned. This Congress also places on record its need that the areas of rooms should be such as is considered necessary by the housing experts in each country. Such standards should be embodied in the legislation of each country, and no financial aid should be given in aid of building except for houses up to the standard."

Mr. Whybrow (Labour Housing Association) moved an amendment that the resolution should definitely state that the minimum accommodation should be as follows :—Three large bedrooms, a separate bathroom with hot and cold water, w.c. inside the house, living-room, kitchen, larder and parlour.

Mr. Douthwaite (Bredbury U.D.C.), seconding the amendment, said that the Ministry of Health was holding up the housing scheme in his area because the standard was too high, and consequently the cost too great. He suggested that the housing question should be a national and international one as regards finance. The plans submitted in the various housing schemes provided for one fair-sized room, but the bedrooms were nothing but boxes—10 ft. by 8 ft., or even 9 ft. by 7 ft.

Delegates from Poland and Sweden supported the resolution. The latter pointed out that it was necessary that the different requirements of different countries should be provided for. In Sweden they did not even have bedrooms at all in the sense that bedrooms were provided in this country. The bedrooms were always used as living-rooms and *vice versa*, and kitchens were often used as bedrooms. In the north of Sweden the peasants built very spaciously, and generally had two houses—one for the summer and one for the winter. Owing to the cold, in the winter the family and the hands, both male and female, slept in the kitchen around the chimney. The cost of building was increased by the facts that every room had to be heated and that rooms had to be built around the central chimney. Ninety per cent. of the sickness caused by unhealthy houses was caused by dampness in the walls arising from insufficient heating. The majority of the houses in the country consisted of one kitchen and one other room, but the rooms were very large. If bathrooms were provided in Sweden at present they would not be used, but they had very good public and school baths, which were educating the public to the general use of baths.

Monsieur J. Kruseman (Holland) pointed out that the amendment applied specifically to English conditions ; in other countries there was, perhaps, no demand for bathrooms or parlours. This view was supported by Monsieur J. Bjerre (Denmark), Mr. W. M. Ross (British East Africa) and Monsieur Rey (France).

Councillor Adams (Newcastle-on-Tyne) urged that the standard of housing should be fixed by the size of the family rather than by the income and the ability to pay higher rents.

Mrs. How Martin (Middlesex County Council) said the amendment had been framed without considering the work the woman had to do in the house. If one pair of hands were to do all the work of the house and look after the children, then the less number of rooms the better. She suggested that playrooms should be provided for every street or group of houses for use as children's play centres in the winter.

Ultimately the amendment was withdrawn and the resolution carried.

REGIONAL SURVEYS.

Lord Astor (Parliamentary Secretary to the Ministry of Health) occupied the chair during the afternoon session, and said that it was not sufficient merely to erect houses in a haphazard manner ; it would be necessary to control building operations with a wise guidance. There were, in fact, two problems—the immediate necessity for houses, and the necessity for the guidance of future development, and the question of transportation had also to be considered. The distance between the business part of a city and the suburbs was a big factor in housing, and that was a result of the lack of foresight in the past. Not only was town-planning necessary, but regional surveys should be undertaken. We had to look ahead in terms not of yards but of miles. Definite spaces should be allotted for industrial purposes, housing and open spaces. Electricity, steam and petrol were altering the whole conception of distance. He believed that in the development of the garden city idea would be found a real relief from the problems which were worrying the public at the present day.

Mr. Thompson (Dundee) then moved the following resolution :—" That this Congress is convinced of the importance of exercising wise governmental control and guidance with regard to town-planning both regional and local. Further, this Congress desires to place on record its recognition of the importance of the following principles :—(1) That in order to secure adequate provision of light and air in and around the homes of the people there should be definite limitation of the number of dwellings per hectare, and for space adjacent to dwellings, such limitation being a matter of governmental determination ; (2) That the policy of decentralisation of industries and the building of new garden cities should be encouraged by legislative provisions and by all other means, both public and private ; (3) That each Government, acting in partnership with local authorities, should prepare in advance and carry into effect a regional survey, followed by planning schemes, with a view to putting an end to wasteful and chaotic developments and securing that the lines of future growth shall be well ordered and scientific ; (4) That in view of the acknowledged necessity for such action the Government should, acting in co-operating with local authorities, control the direction and assist in the upkeep of main and arterial roads."

Mr. Thompson said that in his opinion the number of dwellings to the acre fixed by the Ministry was too high ; eight houses, or ten at the most, was quite sufficient, and allowed for ample open spaces. The mischief already done by the lack of organised development was almost irreparable in many of the large towns, but in Dundee former methods had been brought to a dead stop, and they had now allocated areas for industries, houses and parks. His experience was that unless Government departments were better staffed and had more administrative material at their disposal, adequate progress would not be made in this direction. Co-operation between the Government and municipalities in the lay-out and maintenance of arterial roads was also essential.

Mr. Thomas Adams (Commissioner of Conservation to the Canadian Government) said that housing and town-planning questions must be linked together. Town-planning schemes were essential if the investment value of house building was to be put on a footing with other investments. Private and public enterprise were inseparable ; for instance, the present town-planning legislation would probably not have been made but for the way having been paved and experience gained in the erection of garden cities by private enterprise. Regional surveys were necessary whether regional planning were to be carried out or not. In the Doncaster district it was proposed to have a regional survey of 120,000 acres, and this would be of the greatest value in connection with the development of the new coal-bearing area. He urged that Government assistance should be given towards research in town-planning.

Mr. Lillienberg (Chief of the Town-Planning Department, Gothenburg) briefly outlined the town-planning provisions in Sweden.

Mr. G. A. Smith (United States) said that in the town from which he came (Salt Lake City) 75 per cent. of the people lived in their own homes and a further 5 per cent. would own their own houses within the next five years. The streets were 132 ft. wide. He suggested that central heating should be taken more into account in town-planning schemes, by which, he said, great saving would be effected in fuel and cost.

Mr. H. Hals (Norway said that in Norway a law would shortly be passed making it compulsory for even the smallest villages to prepare town-planning schemes. It must be realised that housing and town planning was bound up in the land question ; speculation in land must be stopped and no Government subsidy should be given in respect of houses built on land which had not been bought at agricultural land value.

Mr. Hurst Seager (New Zealand) said he did not feel that the resolution went quite far enough. He moved as an addition that there should be provision for children's playgrounds within a quarter of a mile of every home, with proper superintendence, that there should be planted spaces for rest within easy distance of all places of work, and that there should be properly organised shopping centres within easy distance of all places of residence.

Mr. Whybrow (Labour Housing Association) said that his Association was not in favour of the wholesale adoption of central heating, as, according to an eminent doctor, the over-heated condition of Russian homes, where central heating was in vogue, resulted in a great amount of tuberculosis and delicacy amongst the children. There was also the objection to individual ownership of houses that the owners were unable to move as freely as if the houses were rented.

Mr. Ebenezer Howard said that the building of cottages on garden city lines with a system of decentralising of industries, would result in an economy in building of perhaps, £200 as compared with a similar cottage in a London suburb. In addition, a cottage in a garden city would be of more value to the occupant on account of the fares which would be saved. The infantile mortality rate in Letchworth was one-third of the rate for the whole country. The land at the new Welwyn garden city had cost rather less than £40 per acre, and if the town developed rapidly the land should not cost anything like a high price.

An amendment : " That this Congress is in favour of obtaining cheap land for housing " was passed.

The amendment of Mr. Hurst Seager was put to the meeting and lost, and the resolution as it stood was passed.

A resolution was passed expressing the pleasure of the delegates at hearing that King George had consented to receive an address embodying the resolutions adopted by the Congress.

At the conclusion of the proceedings, Mr. Henry R. Aldridge announced that a similar Congress was being arranged to take place in Rome next year.

Empire Timber Exhibition.

In order to introduce to the British timber trade the wide range of timbers grown within the Empire, the Department of Overseas Trade is promoting an Empire Timber Exhibition, to be held at the Holland Park Skating Rink from July 5 to 17. Many of the samples shown will be of timbers which are little known in this country, and practically every timber-growing country in the Empire will be represented. By the kindness of the Directors of the Exhibition, Members of the Society may obtain complimentary tickets of admission on application to the Secretary of the Society, 28, Bedford Square, W.C. 1.

"Luxury" Building.

The following letter from the President of the Society of Architects dealing with "Luxury Building" appeared in the chief daily papers and professional journals during the month of June:—

Some time ago, when the announcement was first made by the Ministry of Health that "Luxury Building" would have to be stopped, with the object of concentrating the energies of the Building Industry on houses for the working classes, the Society of Architects contended that it was unwise and unneccessary to penalise one section of the Industry in order to benefit another, and that the same object could be attained much more easily and quickly if all restrictions on building were removed and private enterprise encouraged.

Now that the Ministry of Health is exercising its restrictive powers and there is a tendency amongst Local Authorities to go one better and stop *all* forms of building enterprise except houses for the working classes, the Society of Architects thinks it desirable that the public should realise the probable result of this policy and its disastrous effect upon the Building Industry if continued.

Although architects have been very badly hit by the War and always suffer from any restrictions imposed on the Building Industry, yet they would be the first to support a proposal for curtailing unnecessary building enterprises if the carrying out of them would really hamper the supply of houses for the working classes. Therefore, it is not merely on behalf of the architect that the Society is making its protest, but on behalf of the Industry generally, and of the needs of the community.

There are many classes of skilled labour and a vast range of material, etc., in the Building Industry, which are not required for housing, and by stopping the type of building in which such labour and materials are used, many skilled craftsmen would be thrown out of work, and factories, quarries and works from whence such materials are obtained would practically close down, as would many Builders' establishments. Dr. Addison's proposals to penalise one section of the Building Industry means bankruptcy in many cases, and discontent and unrest in others.

In some quarters there is an impression that the skilled craftsman from the so-called luxury building can be switched on to cottage work, in which none of the materials he is accustomed to handle are used. This may be so in the sense that a skilled surgeon may be quite capable of scrubbing a floor, but the economic waste is too awful to contemplate.

Does Dr. Addison imagine for a moment that the displaced craftsmen or the penalised builders will place their services and plant at the disposal of the Government for housing? If so, he will get a rude awakening; and if he succeeds in getting hold of a few extra bricklayers and carpenters has he considered that in many cases they will have to be transported to and from the job and that the greater part of their time will be spent in travelling and not in working and the cost of the houses which have already gone up 50 per cent. in the last few months will become prohibitive and impossible.

A little thought will show that restrictions in the Building Industry must reflect disastrously on the commerce of the country just at a time when extensions and new buildings are absolutely necessary if the commercial supremacy of this country is of any account.

It is typical of Government methods that Dr. Addison is launching his scheme of Housing Bonds concurrently with his proposals for paralysing the principal part of the Building Industry and thereby checking many other forms of commercial enterprise and preventing a large number of people from subscribing.

The Society of Architects is heartily in accord with the views expressed by Mr. Simpson, the President of the R.I.B.A., in his admirable letter in *The Times*, of April 19th last.

Dr. Addison dismisses that letter as "rubbish," but there are thousands of architects with the knowledge and experience of the subject which Dr. Addison lacks, who approve and support every word of it, and who are astonished that a professional man of the standing of Dr. Addison can adopt such an attitude towards the members of another profession whose one object it is to place their expert knowledge and assistance at the disposal of the Government in a matter which the profession are competent to handle.

There is no doubt that in some places, houses for the working classes are urgently required and it is equally certain that in others the shortage is less acute, but discrimination is not an outstanding feature in the programme, consequently Local Authorities are simply being coerced by the Government who appear to be not so anxious about the necessity of the working classes as they are about the result of the next election.

It is and always has been, the object of the Society to assist the Ministry in dealing with its gigantic difficulty of coping with the shortage of a certain class of house and its criticisms are not directed personally against Dr. Addison or his advisers, but the National Housing Scheme is a failure and a serious condition of affairs is arising with which the Ministry of Health is quite incapable of dealing.

Whilst we all deplore the reasons which have caused the Director-General of Housing to rest from his labours, it would be a wise solution to the present situation if the Ministry of Health prescribed for itself a total cessation of its work, so far as housing is concerned, and handed over the whole thing to a representative body of Architects, Builders and Operatives,who would see that homes for the people were provided where they were wanted.

The Society of Architects keeps pegging away at the ban on so-called "luxury building." It is has issued a further circular letter to the Press to expose the fallacy of trying to concentrate all building energy on one class of work. By persisting in this futile course, the Ministry of Health are doing themselves a great injustice —they are laying themselves open to a charge of stupidity and obstinacy which will discredit them rather seriously when they undertake the work that is more appropriate to a Health Department than the autocratic and arbitrary control of building. They would be wise to free themselves from this responsibility before it is wrested from their grasp. It is still possible for them to withdraw with grace from a position from which we should be sorry to see them compelled to retire with ignominy, but they had better be quick to take the hint.—*The Architect's Journal.*

The Daily Telegraph published on Thursday a spirited letter from the President of The Society of Architects on the prohibition by the Ministry of Health of so-called luxury building. The President says that "there are many classes of skilled labour and a vast range of material, etc., in the building industry which are not required for housing, and by a stoppage of the type of building in which such labour and materials are used many skilled craftsmen would be thrown out of work, and factories, quarries, and works whence such materials are obtained would practically close down, as would many builders' establishments. In some quarters there is an impression that the skilled craftsmen from the so-called luxury building can be switched on to cottage work, in which none of the materials he is accustomed to handle is used.

This may be so in the sense that a skilled surgeon may be quite capable of scrubbing a floor, but the economic waste is too awful to contemplate. Does Dr. Addison imagine for a moment that the displaced craftsmen or the penalised builders will place their services and plant at the disposal of the Government for housing? If so, he will get a rude awakening, and if he succeeds in getting hold of a few extra bricklayers and carpenters, has he considered that in many cases they will have to be transported to and from the job, that the greater part of their time will be spent in travelling and not in working, and that the cost of the houses, which has already gone up 50 per cent. in the last few months, will become prohibitive and impossible?" Such a pronouncement from a man who is fully acquainted with the building situation will, we hope, carry some weight with our bureaucratic experts. It will at least help to open the eyes of the public to the dangerous situation into which we are drifting.—*Ways and Means.*

While public sentiment is undoubtedly opposed to luxury building which is likely to interfere with the erection of houses for the people, and while the prohibition committee supports public sentiment in holding up all such building and is in the opinion of many carrying the prohibition altogether too far, the President of The Society of Architects is making a vigorous attack on the Ministry of Health and pointing to the supposed evil of its present methods.

"There are many classes of skilled labour and a vast range of material, etc., in the building industry," says the President of the Architects' Society, "which are not required for housing, and by stopping the type of building in which such labour and materials are used, many skilled craftsmen would be thrown out of work, and factories, quarries and works from whence such materials are obtained would practically close down, as would many builders' establishments. Dr. Addison's proposals to penalise one section of the building industry means bankruptcy in many cases, and discontent and unrest in others.

"Does Dr. Addison imagine for a moment that the displaced craftsmen or the penalised builders will place their services and plant at the disposal of the Government for housing? If so, he will get a rude awakening; and if he succeeds in this, has he considered that in many cases they will have to be transported to and from the job, and that the greater part of their time will be spent in travelling and not in working, and that the cost of the houses, which have already gone up 50 per cent. in the last few months, will become prohibitive and impossible.

"It is typical of Government methods that Dr. Addison is launching his scheme of Housing Bonds concurrently with his proposals for paralysing the principal part of the building industry and thereby checking many other forms of commercial enterprise and preventing a large number of people from subscribing.

"The national housing scheme is a failure, and a serious condition of affairs is arising with which the Ministry of Health is quite incapable of dealing. It would be a wise solution to the present situation if the Ministry of Health prescribed for itself a total cessation of its work so far as housing is concerned and handed over the whole thing to a representative body of architects, builders and operatives, who would see that homes for the people were provided where they were wanted." —*Liverpool Evening Express.*

We have received from the President of The Society of Architects a statement bearing upon the stoppage of "luxury building," with the object of concentrating the energies of the building industry on houses for the working classes. It is said that since the Ministry of Health began exercising its restrictive powers some local authorities have shown a tendency to "go one better," and stop all forms of building enterprise except houses for the working classes. So far as we have observed there has been no tendency in East Anglia to take such an extreme view of the powers vested in local authorities in regard to new buildings, but evidently something of the sort is going on, although it is against the material interests of a community to adopt such a course. While we fully agree with the decision that new cinemas, hotels, or any places of amusement should not be built at the present time, using labour and materials that could be better employed in building houses, it is obvious that there are many classes of property, not working-class dwellings, that should not be entirely stopped, though they might be rationed. There are works and factories that will provide work for some of those who are unemployed, and it must be remembered that such buildings also increase the rateable value of the district in which they are placed, and so help to bring down the rates. There is also this difficulty that very few private individuals are prepared to contemplate the building of a house, and builders do not seem to see their way to enter upon schemes of house-building on speculation, with the result that some builders, who have not got a housing contract with the local authority, have been themselves practically unemployed. That is bad for the industry.

The position is improving somewhat, from the point of view of the builders, on account of the subsidy offered by the Ministry of Health for the production of houses by private enterprise, but it is obvious that the architects of a community cannot live on planning houses for the working classes, even with a few urgently required Industrial premises. Hence the plea of The Society of Architects for the abolition of restrictions on building. . . . . Dr. Addison, Minister of Health, is stated to have referred to a statement of the President of the Royal Institute of British Architects, who recently wrote to the *Times* to the same effect, as "rubbish." The President of The Society of Architects cordially supports his brother President's views, declaring that restrictions in the building industry must reflect disastrously on the commerce of the country, and he not only defends the erection of industrial buildings, but boldly stands up for "luxury" work, which he says is not in the least likely to interfere with the building of cottages. "There are," he says, "many classes of skilled labour, and a vast range of material, etc., in the building industry, which are not required for housing, and by stopping the type of building in which such labour and material are used, many skilled craftsmen would be thrown out of work, and factories, quarries, and works whence such materials are obtained would practically close down." Dr. Addison's proposals to penalise one section of the community for the supposed benefit of another, he heartily condemns. He concludes his statement by advocating the handing over of the whole problem of housing to a representative body of architects, builders and operatives, who, he declares, with a confidence which we admire but do not share, would see that homes for the people were provided where they were wanted. So far as Ipswich is concerned there seems to be a general lack of progress in building operations of all kinds, with one or two exceptions, although many beneficial projects are in hand, but we have never heard it suggested that it is due to anything but the lack of building materials and the scarcity of labour.—*East Anglian Daily Times.*

The Society of Architects is in arms against the stoppage of luxury building which has been insisted upon by the Ministry of Health until the demands of the working classes for housing accommodation have been met to some greater extent than at present. It is contended that to penalise one class of industry in order to benefit another is both unwise and unnecessary, and must lead to serious results. The argument used is that there are many classes of skilled labour and "a vast range of material," which are not required for housing, and that the present embargo imposed by Dr. Addison will entail much unemployment and economical waste. But The Society of Architects will have to advance something more convincing than this before it induces the Ministry of Health to withdraw the restrictions in question. There is reason to believe that if architects and builders were permitted a free hand in this matter the end of another five years would find us very little nearer a solution of the housing problem than we are at present. The pressing need of the moment is for more houses, and the man in the street finds it difficult to understand why, if bricks and mortar are obtainable, there should be all this intolerable delay in the provision of homes for the people. One thing we may depend upon is that while the materials and labour are being monopolised for what is termed luxury building no progress will be made with the nation's housing scheme, and merely to say that the Ministry of Health's scheme is a failure is no justification for abandoning all further attempts to meet the housing requirements of the community. —*Leicester Daily Mercury.*

A good deal of misapprehension exists regarding the attitude of the building trade unions towards what is called "luxury" building. It is often assumed that the building operatives are anxious to close down such operations and transfer the released labour to housing, when, in fact, they are in substantial agreement with The Society of Architects on this question.

As the President of this Society points out, there are many classes of skilled labour and a great range of material not required for housing, and restrictions on building will certainly throw out of work a large number of skilled craftsmen who could not obtain employment on cottage building.

Mr. J. Murray, of the London District Council of Building Operatives, informs me that his federation have discussed the matter with The Society of Architects and have drawn up an agreed memorandum for presentation to the London County Council which offers suggestions for dealing with the problem on sensible lines. Other districts please note.—*Daily Mail.*

The Society of Architects' Lodge of Freemasons.

The Lodge meets on the second Wednesday in November (Installation), January, March, and May, at the Holborn Restaurant. The present Master is Major T. Stewart Inglis, D.S.O. (M), and the W.M. elect is Mr. William Hoe (M). The next Regular Meeting (Installation), will be held on Wednesday, November 10th, 1920, but it is probable that an Emergency Meeting will be held prior to that date. Visiting "Members" from other Lodges are always welcome and are invited to communicate with the Secretary of the Lodge, Mr. C. McArthur Butler, 28, Bedford Square, W.C. 1.

Correspondence.

To The President,
Society of Architects,
28, Bedford Square, London, W.C.1.

Sir,

Royal Engineers War Memorial.

In view of the large number of Civil Engineers who gave their services in the Great War, I venture to think that the question of a War Memorial to the Royal Engineers will interest the Members of your Society.

2.—This Memorial was initiated immediately after the Armistice was signed, and a special Committee, on which all branches of the Corps, including Territorials and New Armies, were represented, was appointed to draw up a scheme.

3.—On reference to the units serving in the various theatres of war, it appeared that while there was general agreement that a portion of the subscriptions should be devoted to some monumental form of memorial, a majority, more especially in other than commissioned ranks, desired that the greater portion of the funds available should be assigned to give assistance in the education of the dependents of those killed or incapacitated in the war.

4.—After full consideration of all possible schemes, this Committee decided that :—

1 (*a*) A proposal, now under consideration by His Majesty's Office of Works, to allot four sites on The Mall, opposite Marlborough Gate, for War Memorials, afforded the most satisfactory solution for the monumental side of the Royal Engineers Memorial. One of these sites has accordingly been applied for, and, if they become available, the four sites would have to be treated in one comprehensive architectural scheme. It is understood that the Cavalry, the Royal Artillery, and the Guards are considering the question of taking up each one of the remaining three sites.

Should The Mall scheme fall through, the permission of the War Office has been obtained to erect, in lieu, a memorial on a War Department site at the Corps Headquarters, at Chatham, near the existing Crimean and South African Memorial Arches. In this case competitive designs will be invited, and Sir Reginald Blomfield has kindly consented to act as assessor.

1 (*b*) At the same time, the necessary permission has been obtained to instal the Royal Engineers' Roll of Honour in the N.W. Chapel of St. Paul's Cathedral, where the National Memorial to the late Field-Marshal Lord Kitchener, who was so distinguished a member of the Corps, is to be placed. This Chapel will be known as the "Kitchener Chapel," and will furnish an ideal setting for the Corps Roll of Honour. The National Memorial Committee intend to provide an ex-R.E. custodian, which will make it easy for those who wish to do so to inspect the Roll.

11. The balance of the subscriptions will be devoted to giving educational assistance to the dependents of those killed or incapacitated in the war, the capital, as well as the interest, being utilised, and the expenditure spread over a period of 18 years. The funds available to be expended in the grant of small scholarships (1) to help sons and daughters of the men to go on to Technical and Secondary Schools, at say £15 a year each; (2) to help sons and daughters of other men, officers and other ranks, who in pre-war days would have sent their children to a public school or similar institution, at say £40 a year each.

As, however, the R.E. Kitchener Memorial Fund has, with the approval of His Majesty the King, our Colonel-in-Chief, been merged in the General Royal Engineers Memorial Fund (3) £2,000 has been set aside to be vested in Trustees, the interest therefrom to be expended in special and perpetual scholarships, to be called " Kitchener Scholarships."

5.—So far, the total subscriptions amount to some £32,000 only, and it is estimated that it will be necessary to expend at least £15,000 on The Mall site, and £1,000 to suitably prepare and instal the Roll of Honour in St. Paul's Cathedral. This will leave only some £16,000 for education. It had been hoped that the subscriptions would have reached a much larger total, but demobilisation proceeded so rapidly that a large proportion of men and officers had left their units and returned to civil life before any appeal to subscribe to the Memorial could reach them, and although many circulars have been sent out to demobilised officers and men, it has only been possible to trace a small proportion of those concerned. It is felt that your Society is likely to be in touch with many of these, and it is in this connection that I venture to ask your help, in case you may feel disposed to inform your Members of what is contemplated, in order that they may have an opportunity of co-operating by subscribing to the Memorial and by spreading the information to all ex-Royal Engineers and relatives of the deceased with whom they may be in contact.

6.—The experience of the war has shown the immense development of engineer operations attainable by the free utilisation of the talents and experience of the Civil Engineers, and one of the outstanding features of the war was the manner in which the entire engineering resources of the Empire were at once placed at the disposal of the War Department, and the wonderful success attained by the fusion of the civil and military sides of the profession for the purposes of this war, in which the engineer arm bore so prominent a part.

While inviting your co-operation in our joint War Memorial, the Committee, of which I have the honour to be Chairman, desire to put before you how strongly they feel that the greater the co-operation of all branches of the engineering profession in this work, the more closely will those bands of comradeship, which have borne such valuable fruit during the war, be strengthened and preserved, so that if we are called upon to face the same difficulties and dangers again, we may equal and even surpass the success we have together attained in this war.

7.—In conclusion, I would emphasise the fact that this is in no sense a Memorial to Regular soldiers only. The monument will be dedicated, and the benefits, scholarships, etc., so far as funds allow, will be distributed to all alike, Regulars, Special Reserve, Territorials and New Armies, and to all branches of the Corps, including Transportation, Signals, and all special companies raised for the varied duties allotted to the Engineers in the war.

Subscriptions should be sent to The Secretary, R.E. War Memorial, R.E. Institute, Chatham.

I am, Sir,
Yours very truly,
RONALD C. MAXWELL,
Lieut.-General,
Chairman, R.E. War Memorial Committee.

C.o. A.A.G., R.E.,
War Office, Whitehall, London,
22*nd May*, 1920.

To The Editor,
The Society of Architects' Journal.
Sir,

Regional Surveys Conducted by Schoolmasters.

One of the latest phases of education is the Regional Survey which has been adopted by some of the more progressive schools.

The surveys are made under the direction of an enthusiastic master, who explains to the pupils, as they halt from time to time in their tramp along the country lanes and the streets of towns, how England has evolved from the earliest times. These teachings include such subjects as the evolution of roads from cowpaths, the formation of rivers, the strata of the earth and its bearing on vegetation and health, and what will particularly interest the readers of this journal, the study of architecture, both domestic and ecclesiastical.

The Natural History Society connected with the Friends' School at Saffron Walden, visited Bishop's Stortford early in June, and I had the great pleasure of entertaining the pupils and of listening to a remarkably instructive discourse. It was interesting to hear the master describing the progress of this ancient town, as he pointed out the features of the flint-walled church, the quaint market square,with its covered-in structures, the remains of the Bishop's palace, which is near the old ford over the River Stort, the half-timbered inns, together with the ruins of the Norman castle.

Such lessons are bound to benefit the country and especially the art of architecture for it is impossible for anyone to study the various styles of buildings and then be satisfied with the bastard architecture which is so prevalent in England.

Any scheme which inculcates a knowledge of architecture is bound to benefit the architect. I am sure that if the architectural societies were to move for a furtherance of this scheme amongst schools and colleges they would be helping themselves as well as making England a more beautiful country.

J. H. KERNER-GREENWOOD.

Bishop's Stortford.

To the Editor,
The Society of Architects' Journal.
Sir,

I am enclosing cuttings from the local newspapers, regarding the first Exhibition of Arts and Crafts of the South African Academy. The idea of a South African Academy originated from Mr. D. M. Burton, Past-President of the A.T.A., Past-President and now Hon. Treasurer of this Branch of the Society. It was inaugurated by Mr. Burton under the auspices of the A.T.A. The Exhibition was an unqualified success in every way.

It has been decided to hold an exhibition every year. Under the title of the South African Academy, the A.T.A. are endeavouring to get a Royal Charter for the Academy.

You will note in *Building*—newspaper and the cutting I enclose, that the members of the Society are still actively connected with the council of the A.T.A.

Yours faithfully,
J. S. DONALDSON,
Hon. Secretary, South African Branch of the Society.

April 9th, 1920.

Students' Competitions.

GENERAL REGULATIONS.

(1) Drawings must be executed on white paper, imperial size, and mounted on strainers or boards, and bear no motto or other mark of identification.

(2) Essays must be written (preferably typewritten), on foolscap single sheets one side only, and pinned at top left hand corner, and bear no mark of identification.

(3) Drawings and Essays must have attached to them a plain sealed envelope containing a declaration signed by the Candidate that the work is his unaided effort, and has been executed within the time allotted.

(4) Drawings and Essays must be delivered carriage paid at the Society's offices, 28, Bedford Square, W.C.1, not later than 6 p.m., on the day on which the Competition closes, together with any original sketches and notes.

(5) Drawings and Essays will be numbered as received and a corresponding number will be placed upon the Candidate's sealed envelope, which will not be opened until the Competition has been decided.

(6) The Society will not be responsible for the loss of or damage to any drawing or document submitted by Competitors, though every reasonable care will be taken of them.

(7) The Council reserves the right of exhibiting and/or reproducing any of the drawings or essays, and their decision on any point arising out of the Competitions is final and binding on the Competitors.

(8) A Candidate who does not adhere to the conditions and regulations in every particular will be disqualified.

(9) A Scholarship or Studentship may only be held once by the same person.

Quarterly Competitions.

These Competitions are open to Licentiates and Students of the Society who are under 23 years of age on the day the respective entries close, viz., January 31st, April 30th, July 31st and October 31st ; and who have paid their subscriptions for the current year. Ex-Service Students, may, if necessary, deduct the time spent in H.M. Forces, between 1914 and 1919 from their present age.

The First Prize in each quarterly competition is of the value of £3 3s., with a Second Prize of the value of £2 2s., if more than ten Students compete. The Council reserves the right to vary or withhold the award, which will only be made if the work is, in their opinion, of sufficient merit. Successful competitors may be required before the award is confirmed to produce evidence to the Council as to age.

Quarter Ending, July 31st, 1920, Architectural Sketches to be made between November 1st, 1919 and July 31st, 1920. They must be the unaided work of the Candidate and must be delivered at the Society's offices not later than 6 p.m., on Saturday, July 31st.

Quarter Ending, October 31st, 1920, Measured Drawings, consisting of one sheet to one-eighth scale, one sheet to half-inch scale, and one sheet of enlarged details. They must be delivered carriage paid, at the Society's offices, not later than 6 p.m., on Monday, November 1st, together with the original sketches and notes.

Assessors : MESSRS. PERCY B. TUBBS, L. SYLVESTER SULLIVAN, AND HARRY GILL.

Architectural Scholarship.

The Architectural Scholarship, 1920, is offered for Measured Drawings, and the Competition is confined to Licentiates and Students of the Society, who have paid their fees for the current year. The assessors are Messrs. Sir Charles T. Ruthen, O.B.E., Percy B. Tubbs and Professor Adams.

Candidates are required to submit at least three and not more than four sheets of Measured Drawings and Details, of some building of historic interest.

The Drawings are to be prepared between November 1st, 1919 and September 30th, 1920, and must be endorsed, "The Society of Architects' Architectural Scholarship, 1920."

The Scholarship is of the value of £10, and will be disbursed by the Council on behalf of the holder, subject to their approval of the manner in which the Candidate proposes to utilise the Scholarship, or alternatively to the Candidate agreeing to such scheme as the Council may decide upon.

Should the scheme not call for the payment of so much as Ten Pounds (£10) the holder may receive the value of the balance in books or instruments.

The successful Candidate may be required, before the award is confirmed, to produce to the Council evidence as to age.

The Late Monsieur J. Louis Pascal.

It is with deep regret that we see the announcement in *The Builder* of the death of the doyen of French architecture, Monsieur Jean Louis Pascal. Born in Paris in 1837, he became a pupil of Guilbert in the year 1853, and soon gave promise of the architectural genius which later caused his name to be known throughout Europe and America. After winning various prizes at the Ecole des Beaux Arts, he achieved the remarkable feat of winning the second prize in the Grand Prix de Rome when aged 22. In 1866 he gained the Grand Prix de Rome with a design for a bank and residence which has since became a classic. It was at about this time that he gained much of that vast store of architectural knowledge in the collaboration with Charles Garnier during the design and construction of the Opera. During the years which followed he won many competitions, and carried out various private works. He served as a volunteer with the French Army in 1870-71 in the war with Prussia, and on his return was selected to succeed Lefuel as Inspector of Works for the completion of the buildings at the Louvre, and subsequently succeeded his former master, Questel, as *patron* of the Atelier. Then, in 1875, he became architect to the National Library in Paris, where he carried out some refined and scholarly additions which are too well known and widely appreciated to require any notice here.

M. Pascal became a member of the Jury of the Ecole des Beaux Arts in 1878, and has probably had more influence on the policy of that important body than any contemporary architect.

A long list of important public and private buildings filled the following years, and in consequence of this M. Pascal was, in 1890, elected a member of the Institute of France, and in 1914, he was awarded the R.I.B.A. Royal Gold Medal.

M. Pascal was an Honorary Member of the " First Atelier," the Patron of which, Mr. Arthur Davis, is one of his former pupils.

Transfers to the Fellowship Class.

Members of the Society elected previously to May 1st, 1920, who are over thirty years of age and have been engaged as Principals in the practice of Architecture for at least ten consecutive years, and are still so practising, or who are Fellows of the R.I.B.A., are eligible to make an application for transfer to the Fellowship class. Members elected since May 1st, 1920, have a similar privilege, but cannot exercise it for twelve months from the date of their election.

Application must in the first instance be made on a form to be obtained from the Secretary, accompanied by evidence of qualifications by way of drawings and other testimonies of professional standing and ability as the Council may in each case require.

The Annual Subscription of Fellows is £4 4s., and Members of the Society on election as Fellows do not pay the Entrance Fee of that class.

The first Annual Subscription of all Fellows elected before October 31st, 1920, will be credited to them to October 31st, 1921, so that Members transferred before the first-named date will not pay any increased subscription for the remainder of the present financial year, which is covered by their present membership subscription. The latter, if not already paid, must be discharged before an application for transfer can be entertained by the Council.

The Membership Class.

Members who are not at present eligible to make an application for transfer to Fellowship may do so when they acquire the requisite qualifications.

The Annual Subscription of Members is now £3 3s., as from November 1st, 1920.

New Membership Certificates.

The new forms of Certificates for Fellowship, Membership and Licentiateship of the Society have been approved by the Council. They will be issued to all Members (in any class), elected on and after July 15th, 1920, and present members wishing to exchange their original Membership Certificate for a new one may do so on returning the old one to the Secretary with a remittance of five shillings The new Certificate issued in exchange will bear the original date of election.

Those who prefer to retain their present Certificates are under no obligation to change them.

The Library.

Gifts of books on Architecture and allied subjects, and Donations to the Library Fund are invited. Books from the technical circulating library are sent through the post, or may be obtained on loan personally by Members on application. The Rules relating to the use of the Library are published in the Year Book, and a copy of the Catalogue may be obtained (free of charge) from the Secretary.

NOTE. The Library is closed for the time being, pending the completion of alterations and decorations to the premises. Notice of re-opening will be given in these columns in due course.

Architects to Sign Plans.

A Trade Union Principle.

At last night's meeting of the Johannesburg Town Council, there was a lengthy discussion on the proposed new building by-law. The effect of this is that plans for work over £200 in value must be signed by architects. Mr. Weir moved that it be sent back for further consideration.

He pointed out that several protests against the by-law had been received. However, the present system was entirely wrong. He thought the committee should go into the question with the architects and with their own department. At present plans were being sent in signed by the owner and only makeshift specifications were supplied. The specifications should be fully detailed, and he claimed that the municipal qualified officials should superintend the work. Much of the foundation work in building was done by Kafirs and coloured people, and was not done properly. In some cases, too, second-hand material was used.

Mr. W. M. Taylor urged that some provision should be made for the men who, although not architects, were qualified to do the work which they were now privileged to do.

Replying to Mr. Clark, the chairman of the committee (Mr. Nicholas) pointed out that this was a trade union principle. Mr. Drew supported this view, and said it was in the interests of the public in general, because it would hit the cheap jerry builder. Any qualified man could readily obtain admission to the Society of Architects. Also the architects stipulated the payment of standard wages. In the past much of the work had been done under a system which undermined the best principles in the community to-day. The motion had the support of all the building trades unions.

Mr. Scott supported the motion, and Mr. Butler asked why our officials could not do the necessary supervision to-day.

Mr. Harris, on rising, explained that he was by profession an architect.

The Mayor pointed out that anyone interested in any business brought before the Council should not remain in the Council Chamber or take part in the business otherwise he might be unseated.

Mr. Harris replied that he fearlessly took the risk of being unseated—he was speaking in the interests of the town of Johannesburg. Anyone who thought he was speaking in the selfish interest was welcome to try to unseat him.

Proceeding, Mr. Harris replied to Mr. Weir, who wished to go further than the resolution. That, he claimed, would be the great mistake of trying to go too fast. To Mr. Butler he said that it was impossible to put such large responsibilities on their officials. He thought there should be very few impressed by the objections of the Association of Draughtsmen, and of that superior body, the Chamber of Mines. Was not medical practice a monopoly, and legal practice also? Certain work was limited to certificated plumbers and electricians. They had to protect the town of Johannesburg from the half-qualified man. They had to protect the development of their city. The by-law, he was convinced would be for the town's great benefit.

The amendment was heavily defeated, and the by-law was carried by a large majority.— *Johannesburg Daily Mail.*

Form of Contract.

The Society's form of Building Contract has been reprinted with slight alterations, and can now be obtained from the offices of the Society, 28, Bedford Square, W.C.1., at a charge of one shilling (post free 1s. 2d.).

Ordinary Meeting.

An Ordinary Meeting of The Society of Architects will be held at 28, Bedford Square, W.C.1., on Thursday, 15th July, 1920, at 6 p.m., for the election of Members and the transaction of routine business.

Proceedings of the Society.

An Ordinary Meeting of The Society of Architects was held at 28, Bedford Square London, W.C.1, on Thursday, June 10th, 1920, at 6 p.m.

The President, Mr. Edwin J. Sadgrove, having taken the Chair, the minutes of the Ordinary Meeting of May 13th, as published in the *Journal*, were taken as read and were confirmed and signed.

The Assistant-Secretary announced 4 nominations for Fellowship, 59 nominations of present Members for transfer to Fellowship, and 14 nominations for Membership. He also announced the admission by the Council to the Register of Licentiates of :—James F. Hampton, of Bury St. Edmunds ; Ernest Edward Jenkins, of Canterbury ; Eugene Ernest Oliver Lawrence, of Canvey-on-Sea ; Vasco de Moraes Palmeiro, of London and Lisbon ; Thomas Harold Smith, of Brighton ; and Sydney Wilson, of Newcastle-on-Tyne ; and the admission by the Council to the Register of Students of Harold Graves Avery, of Snaith, Yorks ; Harry Cotton, of Derby ; Robert F. Norris, of Blackburn ; and Victor Saunders, of Ventnor.

He further announced the transfer to the retired list of R. P. Sharp (Member), of Bradford, elected in 1888, and the resignation of J. Whitaker (Student), of Burnley.

Sympathetic reference was made to the loss sustained by the Society through the death of Henry Shaw (Retired Member), of London.

The Assistant-Secretary stated that the 12-hour esquisse for the final competition of the Society's Victory Scholarship had taken place on June 5th, when eight candidates completed their sketches for the final design.

The final designs were to be assessed on July 6th by the Royal Academy Ateliers' Jury, and it was hoped that the Gold Medal of the Society, and the cheque for £100 would be presented to the winner of the Competition at the next Ordinary Meeting of the Society to be held on July 15th.

The Ballot was then taken for the election of the following candidates for Membership, and was declared to be unanimously in their favour :—

Earee, Frederick Percy, 36, Market Hill, Sudbury, Suffolk. Evans, John, 42, Stepney Street, Llanelly. Fritchley, Cecil Edwin, Standard Building, Hornby Road, Bombay. Haslewood, Noel Albert Fitzherbert, 36, Market Hill, Sudbury, Suffolk. Pamplin, Frederick William, 53, Hawthorne Road, Bexley Heath, Kent. Parry, David Roberts, Ty Gwyn, Llanbebleg, Carnarvon. Tolhurst, John Basil Lowder, St. Albans, Beckenham, Kent. Vernon, Karl, " Six," Eton Avenue, New Malden, Surrey. Wynne-Thomas, Daniel, St. Paul's Old Vicarage, Halliwell, Bolton.

The proceedings then terminated.

Belgian Notes.

By W. E. WOOLLEY, M.S.A.,

Membre Correspondent de la Société Centrale d'Architecture de Belgique, etc.

Water Supply for the Devastated Regions, Belgium.—Water supply schemes for the devastated areas have been submitted to the Minister of the Interior, Belgium. They deal more particularly with West Flanders. The supplies proposed would be capable of serving in the first place a population of 415,000 in 125 communes, but provision will be made for extension to other districts. The water will be taken from the Tournai region. Belgians state if work is put in hand at once, work will be completed under two years.

Louvain, Belgium.—It is announced that the United States have promised to reconstruct the monuments of Louvain, and that France is to very largely furnish the books for the, at one time, world-famous library, which, together with the University and other buildings, were destroyed in 1914 by the Germans.

Ypres, Belgium.—The problem of Ypres still continues to attract considerable attention, and opinions are greatly divided over the matter. The Royal Commission of Monuments has not arrived at a definite decision, some members having expressed a wish that the ruins of the Cloth Hall and St. Martin should be rebuilt, and some desire them left as they are. A third group favour the reconstruction of St. Martin, but not the Cloth Hall. The consultative Architectural Committee of the Ministry of the Interior has reserved its views, also the Beaux Arts Section of the Academy.

Conference of Burgomasters, Brussels.—At a Conference of Burgomasters held recently at Brussels, Monsieur Max, Burgomaster of Brussels being President, the Conference passed a resolution requesting the various town councils to promote the construction of as many housing schemes as possible.

Ghent.—The Ghent Museum has lately acquired a number of valuable pictures, amongst them being a Rubens, and another believed to be a Vandergoes (16th Century).

Palais des Beaux-Arts, Brussels.—The Belgian Government has adopted the plans of M. Victor Horta for the construction of a "Palais des Beaux-Arts," to face the Rue Courbe, Brussels. The scheme is remarkable for its ingenuity and handsome architectural treatment, and it realises all the hopes of the artistic world. Painters, sculptors, and musicians are catered for, and the scheme provides for exhibition galleries, concert hall (over 2,000 persons), lecture halls, etc. It is estimated the buildings—with exception of decorative work to the concert hall—will be completed a year hence.

Yprès.—The contract (or contracts) for clearing away the debris of the ruins of Yprès is to be let.

Publicity.

The Society has a special department for securing publicity in the Press and elsewhere relating to matters in which the Society and its Members are concerned. Members can greatly assist the work of the Society by keeping the Secretary supplied with cuttings from local newspapers or other information of interest to architects in general and Members of the Society in particular.

Review.

Old Crosses and Lych-Gates. By Aylmer Vallance. B. T. Batsford, Ltd., London, Publishers. (18/- net.)

This is a beautiful work of some 200 pages and 237 illustrations, of which 189 refer to Crosses and the remainder to Lych-Gates.

We learn from the preface that "It was thought it might be useful to gather together a collection of examples of these as affording the most appropriate form of memorials to our heroic dead—memorials that will tell the generations to come the nation realised the bitterness and the glory of the years of the great war." To this the author might have added the words he quotes as to the use of market crosses "to incite public homage to the religion of Christ crucified and to inspire men with a sense of morality and piety amidst the ordinary transactions of life." Lessons sadly needed in these days, when too often contracts are lightly broken and obligations of service sadly shirked.

The book gives evidence of much patient research and is, as one would expect of anything emanating from 'Batsfords', beautifully illustrated with photographic reproductions and measured drawings. It should prove a useful architectural reference book, and might, with advantage, accompany the architect when meeting War Memorial Committees. Could it but be sufficiently widely circulated, it might even do something towards the improvement of that awful example of inartistic extravagance and ostentation—the suburban burial-ground of a wealthy manufacturing city.

The author claims that his classification, "based solely upon the study of anatomical form and structure" is original and presents the subject in an entirely new aspect. He classifies crosses as :—

(*a*) Monolith crosses ; (*b*) the shaft on steps type ; (*c*) spire-shaped or Eleanor crosses ; (*f*) preaching crosses ; (*g*) market crosses ; (*h*) unclassified varieties.

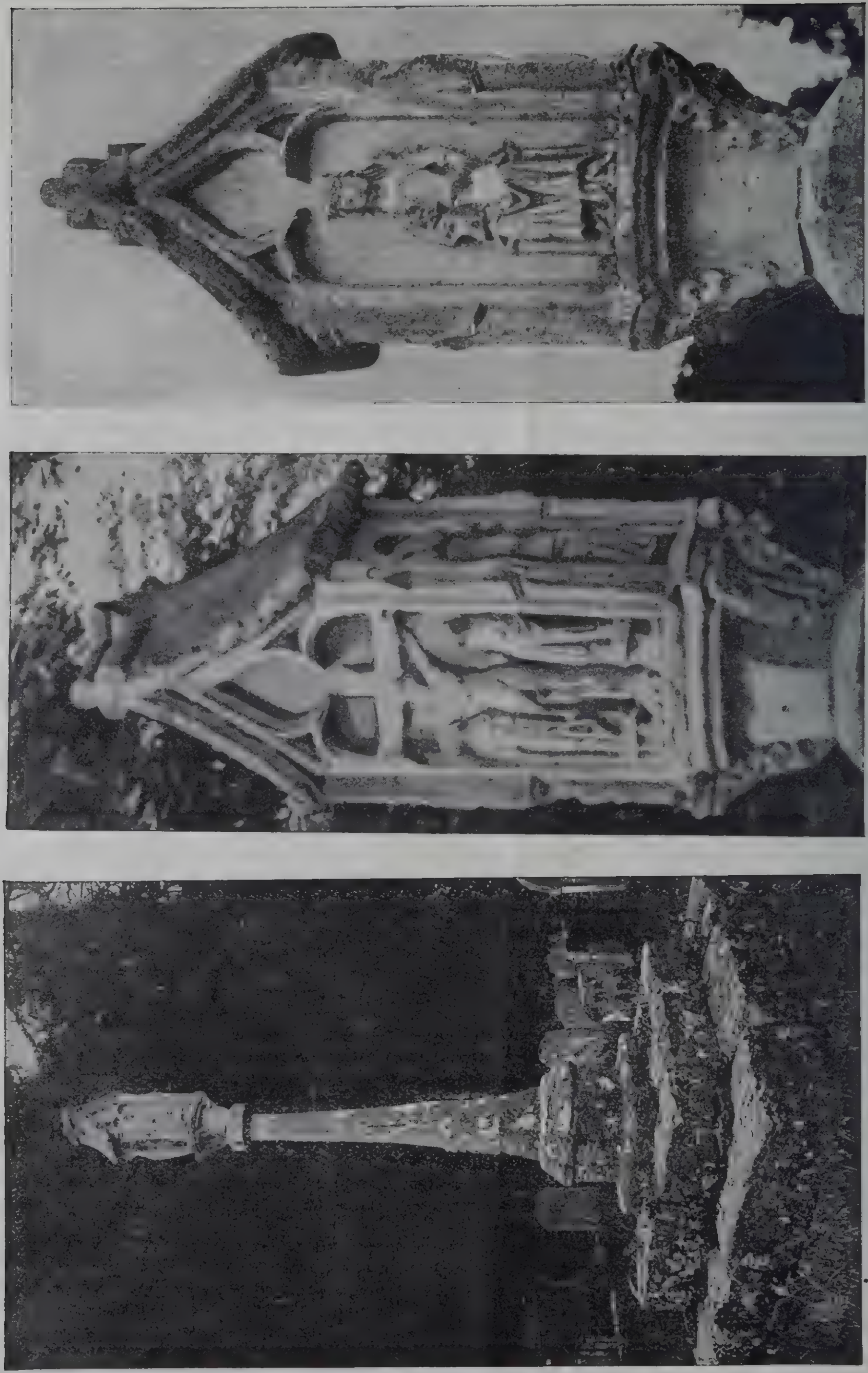
After carefully reading the book we cannot but feel that the classification is not its most satisfactory feature ; and the author almost admits as much by the use of class (*h*) which, like the "forgets" in the lady's house-keeping book, is likely to become a considerable *omnium gatherum*. Then too, could not (say) the Cheddar Market Cross, where a fifteenth century shaft of (*b*) type is "built around by a stone structure of six four-centred arches and shelter" be as correctly entered in either (*b*) or (*g*) group ?

The examples given are limited to England and Wales ; this is to be regretted, as it rules out the interesting Irish examples. Perhaps the author may be persuaded to take these up at a later date, and also the beautiful wrought-iron crosses so common in some parts of France, of which the annexed example was sketched by Sergeant Alex. McKenzie, R.F.A., when on active service there during the late war.

The author's historical notes and notes of cost of construction are very interesting, and his descriptions and explanations are terse and scholarly. Thus, of the beautiful cross at Ampney-Crucis, Gloucestershire (Fig. 97, 98 and 99), he writes : "This Churchyard cross was overthrown at some unknown period. In January, 1854, the head of it was discovered built up amid a heap of rubbish in the cavity of the Rood staircase. It was reinstated in its proper place in 1860. There are two stone steps which measure respectively 7 ft. 6 ins., and 5 ft. square and an octagonal socket. The shaft is square in plan, changing by means of stops into an octagon. The stops, however, instead of terminating in diamond points, or otherwise dying away into the chamber, are crowned with engaged pinnacles, extending some way up the canted sides, a most unusual and charming device. It is a misfortune that the effect of this fine cross is spoilt by the faulty modern treatment of the upper portion of the stem, which, being made too short, is obliged to contract much too abruptly to the junction with the head. . . . . . the total height is only about 10 feet. The head is in excellent preservation, and though not elaborate, is an exceedingly beautiful specimen. It is an oblong square on plan and thus has two wide spaces (occupied respectively by the Blessed Virgin and Child, and by the crucifixion, between Mary and John), and two narrow ends (one occupied by an unidentified ecclesiastic ; the other by an unidentified warrior). The canopies are severely plain, being no more than trefoils, whilst the top is coped in the shape of a gabled roof. The work is of the latter part of the 14th century."

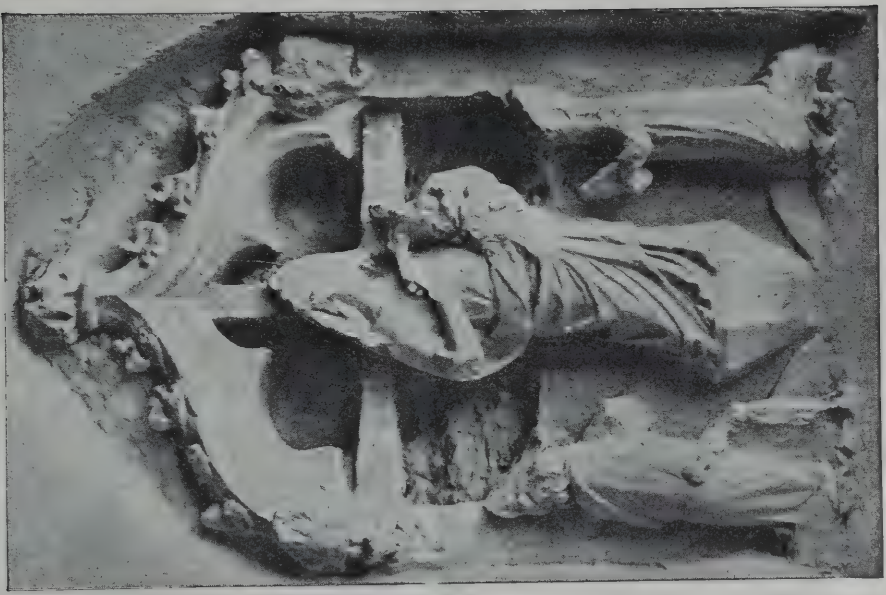
Perhaps one of the most beautiful illustrations is that of the head of the Cross at Bleadon, Somersetshire (Fig. 89), where, even in decay, the central figures are most dignified and almost Grecian. This cross-head, we are informed, "is remarkable, as it still retains its gilding and polychrome colouring."

The author is severe (and with justice) upon restorers or "falsifiers," and gives incentive to a careful examination of all old stonework, by the number of examples he reports as found amongst

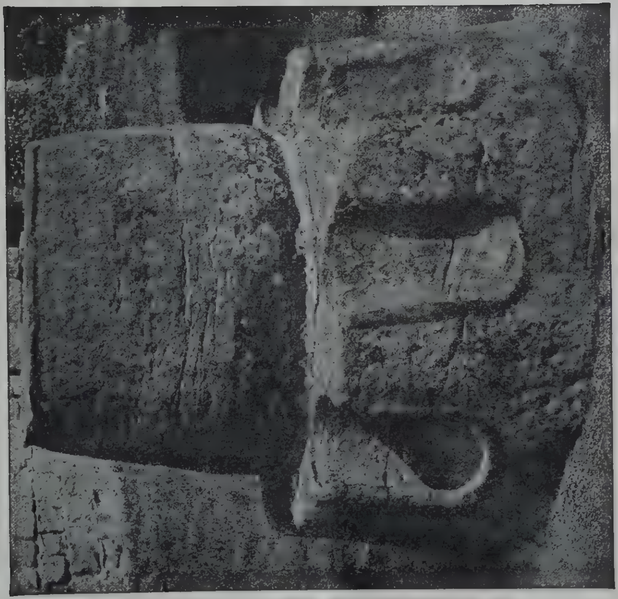


AMPNEY CRUCIS, GLOUCESTERSHIRE.—CHURCHYARD CROSS WITH DETAILS OF HEAD.

Blocks kindly lent by Messrs. B. T. Batsford.

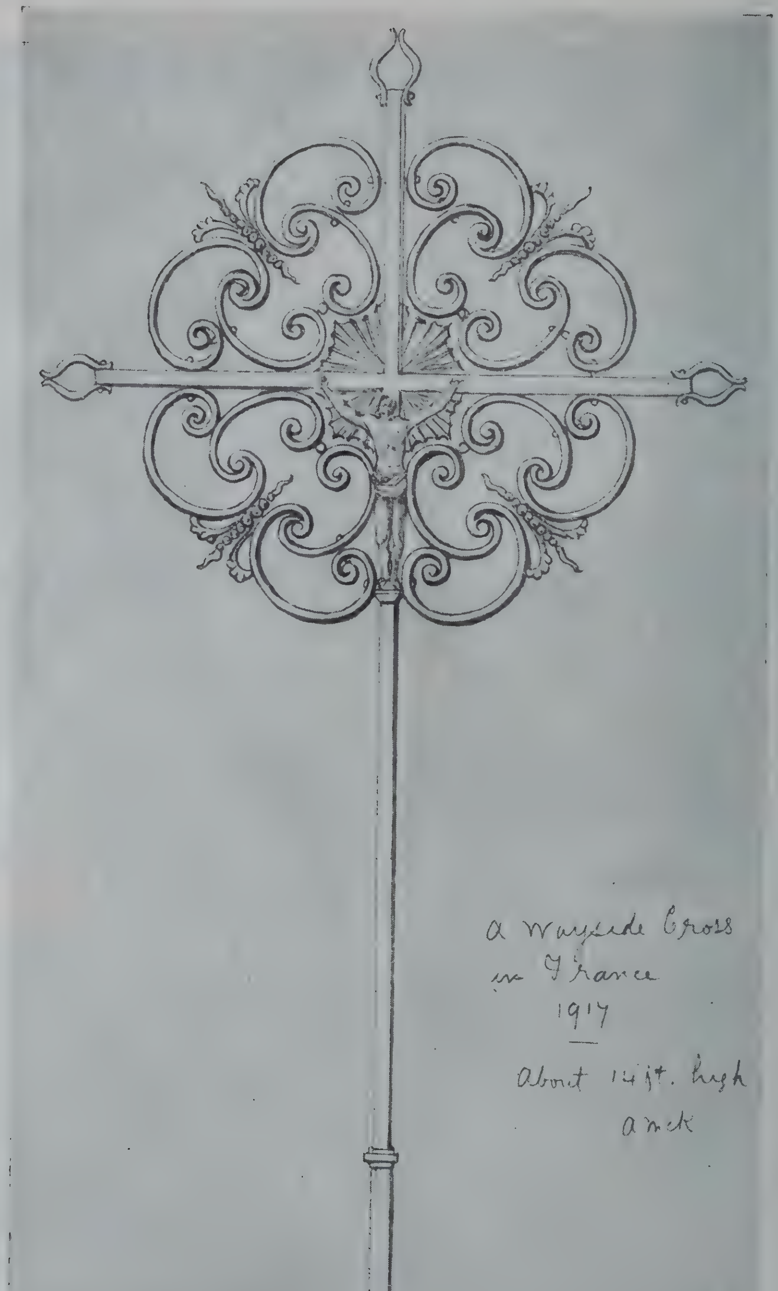


BLEADON, SOMERSETSHIRE.—HEAD OF CROSS.



RIPLEY, W.R., YORKSHIRE.—BASE IN THE CHURCHYARD.

Blocks kindly lent by Messrs. B. T. Batsford.



a Wayside Cross
in France
1917

About 14 ft. high

a mck

rubbish and in walls, etc. There is a grim humour in the settlement of the dispute between the Owner of the Chantry and the Churchwardens of Sherburn-in-Elmet Church, Yorks. A cross-head was found in the ruins of the Chantry in the church-yard, and both the Owner of the Chantry and the Churchwardens claimed it. It proved to be ornamented on both sides with " a crucifixion between Mary and John under a crocketed gable the extremities of the cross ornamented with emblems of the Passion and the interspaces filled with exquisite late-Gothic period tracery. The dispute was settled by sawing the cross down the middle, giving half to each claimant ! This Solomon-like decision reminds one of the settlement of the claim to the right to carry the spurs at a late coronation—each claimant was allowed to carry one spur !

The book contains much interesting history relating to market crosses, and one might suggest to the vandals who propose the destruction of the Wren churches the example of the folk at Maidstone, who, finding the market cross obstructed the traffic, removed it on rollers to the side of the road.

The surmise of the author that part of the base of a supposed cross at Ripley, Yorks (Fig. 196) may have been a font, reminds one of the example in Oakholm Road, Sheffield, where stands part of the shaft of an interesting example of C. J. Innocent's "Bakewell Group of Crosses," which has been at some dim and distant date converted into a coffin and now shows the hollowed out coffin on one side and the scroll-foliage, etc., on the remaining sides.

There is little in the book about the large group of boundary crosses, of which an interesting example was some time ago found by Mr. Balkwiel, of South Huish, South Devon, with the head and arms buried in the ground and the shaft used as a field-gate post. It is a plain latin cross of octagonal section, granite, and about 5 ft. high. It now stands in his orchard, near the ruins of South Huish Church.

The four pages of letterpress which accompany the beautiful illustrations of Lych-Gates leave one under the impression that the author has not devoted to *them* the loving and painstaking care he has lavished upon the crosses. It is to be hoped Mr. Vallance will look upon this part of his work as only a forerunner to a more complete work. Of the Lych-Gates, that at Beckenham, Kent (Fig. 205) is perhaps the most interesting, and with its strong Scandinavian motif, supports one's theory that the English half-timber work *was* an outcome of the Vikings " Hall."—*Thomas Winder (M) Assoo.M.Inst., C.E.*

Book Reviews.

The Secretary will be glad to receive the names of Members who will undertake to notice books sent for review. They are asked to mention the subject with which they would prefer to deal.

Proposal to Move City Churches.

Scheme to Re-erect Them in Garden Cities.

" If the City churches have to go," said a member of The Society of Architects to a " Daily News " representative yesterday, " we are of the opinion that they should be re-erected somewhere else. It would be a real architectural distinction for some of the new garden cities, for example, if they could have one of Wren's churches instead of a modern one.

" Of course, we are resolutely against any interference with them at all, but at the same time we feel that as a last alternative rebuilding is better than destruction."

It will be remembered that when All Hallows, Lombard Street, was marked down for demolition in 1903, the Society proposed that it should be rebuilt elsewhere. The idea was taken up, and as a result the owner of an estate near London offered a valuable freehold site of an acre of ground, with a sum of £500 towards the expenses of rebuilding. The offer lapsed because the church was not pulled down.

If the fate which threatens the 19 churches cannot be avoided, such garden cities as Welwyn or the Hampstead Garden Suburb might save the buildings for posterity, if not for the City of London.—*Daily News.*

Building Guilds.

The attitude of the Ministry of Health towards the Building Guild principle has from the start been one of sympathy ; but several difficulties of detail presented themselves for solution before the Ministry could feel fully justified in approving it. The Guild's position in reference to the purchase of materials, for example, was not clearly defined. The Co-operative Wholesale Society, however, have now agreed to give the Guilds the assistance of their extensive organisation, and it is hoped that a satisfactory arrangement may be reached. There was some difficulty also as to the form of remuneration to be received by the Guilds for their work. At first they adopted the proposal of remuneration by a simple percentage on the cost of the work done, not fully realising certain disadvantages of this method which are not removed by the fact that the Guilds, while proposing to confer on their members the benefit of continuous employment and payment, do not intend any distribution in the nature of bonus or profit. Under such a system of simple percentage payment on cost it might easily happen in connection with a scheme well and economically managed that there would be an inadequate fund for this purpose ; and that in another scheme, which was less carefully conducted, with consequent high costs, the fund was more than sufficient. Both results would be unsatisfactory. The Ministry desired that the amount which was to go as remuneration or extra benefit to labour should be a fixed sum per house, a plan which would secure that the benefit would be at least a little in favour of the well-managed, economical schemes.

The portion of the percentage which under the Guild proposal was allotted to cover costs of management, plant, insurance and other overhead charges, and any surplus which by the rules of the Guild is not to be distributed in benefits but is to be used solely to improve the plant and services of the Guild, is not subject to the same objection, and the Ministry are willing to accept a percentage basis for this for the present, though experience may show some simpler way of dealing with this also. The question of obtaining from the Guilds some definite estimate of costs and some suitable guarantee, so far as circumstances now permit, that the work would be carried out to estimate also needed settlement.

Several conferences have recently been held between representatives of the Guilds and officers of the Ministry of Health, with a view to arriving at a satisfactory working basis.

The promoters of the Manchester organisation, on learning the Ministry's views, proved quite ready to agree to certain modifications of their proposals. An agreement has now been reached, and it is of importance as illustrating principles which may prove capable of more extended application.

The Guild have agreed to give a definite estimate of cost for each type of house. This estimate must be regarded as reasonable by both the parties concerned—the Guild and the Local Authority for whom they build—and must be approved by the Ministry. The Guild's remuneration will be by a lump sum of £40 per house—to provide for a full-time week (regardless of weather) for those employed on the contract and for other purposes of the Guild. A further allowance of six per cent. on the prime cost of the house will be made to cover the cost of plant and other overhead charges, such as salaries of buyers, supervisors and others, who are not wholly employed on the building site.

In the event of the actual cost of a house proving less than the estimated costs, the actual cost only, plus the £40 and the six per cent. overhead charges, will be paid by the Local Authority.

The Guild recognise and agree that in any case the six per cent. for overhead charges should not be paid on any increase in the cost of materials taking place during the progress of the work, although for the purpose of determining whether the estimate has been exceeded or not, fluctuations in the standard rates of labour and prices of materials will be allowed for.

If the actual cost should prove to be more than the estimated cost, after the usual allowance for the fluctuation in wages, rates and prices, the Guild will receive the £40 as above, but the six per cent. will not be payable on the amount of the extra cost.

The agreement provides also that the Co-operative Wholesale Society may be associated in the contract for the purchase of materials. The contract must include a break clause, allowing the contract to be broken after three months if the costs should exceed the estimate by more than any increase that has occurred in the meantime in the rates of wages and in the standard cost of materials. The Co-operative Wholesale Society on being satisfied with the contract will insure the Local Authority against loss under the contract for an insurance premium of one-eighth per cent., 2s. 6d. per £100. The Guild are in agreement with the Ministry that a proper costing system shall be adopted.—*Housing.*

Mainly About Members.

MR. A. J. MURGATROYD (Member of Council), of Manchester, has been elected a member of the Practice Committee of the Manchester Society of Architects.

MR. J. M. DICK PEDDIE (Member), of Edinburgh, has been elected to represent the Edinburgh Architectural Association on the Council of the Institute of Scottish Architects for the Session, 1920-21.

At the tenth annual meeting of the Association of Transvaal Architects, the following members of the Society were elected officers for the current year :—MR. D. M. SINCLAIR, president ; MR. J. S. DONALDSON, vice-president ; Members of Council, Messrs. D. M. BURTON, M.R.SAN.INST. ; M. J. HARRIS, R. HOWDEN, H. G. VEALE and ALLEN WILSON.

MR. L. SYLVESTER SULLIVAN, Member of Council, has been elected a Member of the Council of the Architectural Association.

SIR AMBROSE POYNTER, BT. (Member) and MR. G. H. WENYON (Member of Council), are engaged on the construction of a large number of flats which are to contain many novel labour-saving devices, and which will eventually be let on a 99 year lease.

Changes of Address.

Members are requested to notify the Secretary at once of any temporary or permanent changes in their address so that the Registers may be kept up-to-date and the difficulties avoided which arise when communications to Members are returned through the post.

Current Competition Conditions.

The Society has filed for reference particulars of the following current Competitions :—

*BATLEY (Lay-out), *BRADFORD-ON-AVON, *CHICHESTER, *CLEETHORPES, *LOCKERBIE, *GATLEY, *ARTHURET, *GRAVESEND, *GOOLE, GLOUCESTER, and *HAWICK (War Memorials), THE IDEAL PUBLIC HOUSE (Allsops') and COLOUR SCHEME COMPETITION (Parsons). *RHYL (War Memorial Hospital).

Those starred are still barred to members of the Society owing to unsatisfactory conditions.

Paris Town Planning Competition.

The City of Paris recently offered prizes in a competition open to architects of France and of the Allied countries for plans for the improvement and extension of the city. The competition was divided into four sections : (1) For the general plan affecting Paris and its suburbs ; (2) for the laying-out and improvement of Paris proper ; (3) for the laying-out of the zone of the fortifications which have now been condemned as useless, and the approach and surroundings of the same ; (4) reserved for careful detailed studies of the town-planning of particular areas. For each of these sections valuable prizes were offered, and the city reserved to itself the power of purchasing plans which, for one or another cause, were not included among those receiving prizes. The result of the competition has just been published. The only prize winner in the various competitions who was not of French nationality was Mr. Adrian Berrington, who, with MM. Dujarric and Chaures, gained a prize of 10,000 francs in the first section and of 4,000 francs in the second section, while in the third section the plans offered by himself and his collaborators were acquired by the city for 2,000 francs. M. Chaures was for many years Sous-Patron of the Society's " First Atelier of Architecture," whilst Mr. Berrington is a former graduate of the School of Architecture of the University of Liverpool, and has been for some time a Member of the " First Atelier."

The Society of Architects' "Victory" Scholarship Competition.

The 12-hour preliminary *esquisse* for the Final Competition in connection with the Society's " Victory " Scholarship took place in the Society's Atelier, at 28, Bedford Square, on Saturday, June 5th. Candidates had to prepare a general plan, elevation, and section of the subject set, which was " A National Manufactory for the Production of Porcelain." The site for the Factory was one 4,000 feet by 2,000 feet, contained between a railway and a canal, and the scheme provided for Factory buildings, a Welfare Building for the staff of 1,700 operatives, a Museum open to the public, administrative building, power house, garage, etc., with gardens laid out for the exhibition of potteries suitable for outdoor use.

The finished designs will be assessed by the Jury of the Royal Academy Ateliers, after which they will remain on exhibition for some time in the Society's Atelier.

The presentation to the Winner of the Competition of the Society's Gold Medal and a cheque for £100 will be made at an Ordinary Meeting of the Society, on a date which will be announced in due course.

THE

Journal

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The Society is not, as a body, responsible for the opinions expressed by individual authors and speakers.

The Architectural Association Schools.

The old day school has been reorganised into two sections: A Preparatory School of approximately two years' duration and an Advanced School of one year's duration, leading onwards to five specialised courses, called "Graduate Courses," in Construction, Design, Communal Planning, Decoration, and Business. The A.A. Diploma is awarded after a two years' course in the above subjects, which diploma will be (under certain conditions) accepted by the Institute in lieu of the final Examination, with the exception of Professional Practice Section. These Graduate Courses were inaugurated in 1919, and have now been running a full session with such satisfactory results that the Council have confidence in their meeting the need for higher education in specialised subjects. Mr. Robert Atkinson has been appointed Director of Education, a post equivalent to that of Dean in a University faculty, and a strong Committee of experienced teachers has been created as the school directorate. Mr. H. M. Robertson, Dip., E. de B.A., Reg. A., New York State, has been appointed the new principal of the Day School, with Dr. Faber, D.SC., O.B.E., A.M.I.C.E., A.M.I.E.E., A.C.G.I., in charge of the Constructional Graduate Course, Mr. L. H. Bucknell, A.R.I.B.A., in charge of the Graduate Design and Communal Planning Course, and Mr. P. W. Farmer in charge of the Business Course. The A.A. Atelier has recently been run by Mr. Robertson, and Mr. Bradshaw, Rome Scholar, 1912, has been appointed to succeed him as Sous-Patron. The new appointments make the A.A. teaching staff the strongest in the country, and well worthy to uphold the traditions of the only independent Architectural School run entirely by architects.

Proceedings of the Society.

An Ordinary Meeting of The Society of Architects was held at 28, Bedford Square, London, W.C.1, on Thursday, July 15th, 1920, at 6 p.m.

The President, Mr. Edwin J. Sadgrove, having taken the chair, the minutes of the Ordinary Meeting of June 10th, as published in the Journal, were taken as read, and were confirmed and signed.

The Secretary announced twenty-two nominations for Fellowship and fourteen nominations for Membership, also the admission by the Council to the Register of Licentiates of :—Avery-Fowler, James Aylwin, 4, Shelley Terrace, Lewes. Cameron, Donald John, 149, Watt Street, Glasgow. Gooch, Frederick Walter Fowler, 111, Sefton Street, Southport. Gunnell, Walter Bernard, School House, Milstead, Sittingbourne. Hampshire, Thomas Richard, Municipal Technical School, Belfast. Hughes, James O'Hanlon, 355, Sandycombe Road, Kew Gardens, S.W. Parkes Lees, Charles Wm., Fowey, Cornwall. Savage, Albert Edward, 3, St. David's Avenue, Carmarthen. Taylor, John, 80, North Street, Bo'ness. Wells, Percy Harold Edward, 56, Church Lane, Aldershot. Whitsham, Harold Heaton, Ross Bank, Bingley ; and to the Register of Students of :—Cowling, Wm. John Henry, 20, St. James Road, East Grinstead. Ellis, Leslie James, 15, Beatrice Road, Margate. Smith, Clement James, 4, Norfolk Road, Tunbridge Wells. Whitehouse, Sidney Lunn, Swan Hotel, Studley, Warwickshire. Yates, John Victor, Elmfield, Blandford.

The ballot was then taken for the election of the following candidates for Membership, and was declared to be unanimously in their favour :—

As Fellows.—Collcutt, Bertie Hawkins, 651, Avenida de Mayo, Buenos Aires. Gill-Knight, John A., F.R.I.B.A., 407, Kingsland Road, E.8. Mawson, Edward Prentice, High Street House, Lancaster. Tanner, Sir Henry, F.R.I.B.A., Carlton Chambers, 12, Regent Street, S.W.1.

As Fellows Transferred from Membership.—Adams, Professor Henry, M.INST.C.E., 60, Queen Victoria Street, E.C.4. Ash, Sidney, 22, Ellison Place, Newcastle-upon-Tyne. Ashworth, Samuel Bolton, The Town Hall, Hanley, Stoke-on-Trent. Atkinson, Thomas Beecroft, Trinity House Chambers, Trinity House Lane, Hull. Baines, George., F.R.I.B.A., 121, Victoria Street, S.W.1. Baines Reginald Palmer, 121, Victoria Street, S.W.1. Brown, Alexander Burnett, F.S.I., Lennox House, Norfolk Street, W.C.2. Burton, Charles Frederick, Shipping Chambers, George Street, West Hartlepool. Clark, John Percy, Regent Chambers, Wednesbury. Clemence, Thomas, Riley, Prudential Chambers, Guildford. Dales, Sidney Phillips, 63, High Holborn, W.C.1. Dewes, Walter, 4, Bloomsbury Place, W.C.1. Ellis, Henry Augustus, 40 and 41, Castle Street, Swansea. Fletcher, William Billington, 17, George Street, St. Helens, Lancs. Foster, William Frederick, 6, Great Russell Street, W.C.1. Freyberg, Herbert, F.S.I., 24, Cromwell Place, S.W.7. Harrison, Thomas, 22, Ellison Place, Newcastle-upon-Tyne. Hayward, Percy George, 4, Broad Street Buildings, E.C.2. Hill, William Longfield, 38, Albion Street, Leeds. Hirst, Joseph Henry, The Guildhall, Hull. Inglis, Thomas Stewart, D.S.O., 15, Copley Park, Streatham, S.W.16. Jones, Jacob Herbert, 15, Wind Street, Swansea. Kendall, Herbert, Towngate Street, Poole. Martin, William James, 5, Arundel Street, Strand, W.C.2. May, William Henry, 23, Lockyer Street, Plymouth. McMullen, James Finbarre, 30, South Mall, Cork. Monson, Edward Charles Philip, F.R.I.B.A., Finsbury Pavement House, E.C.2. Monson, Harry Castle Hiett, Finsbury Pavement House, E.C.2. Murgatroyd, Arthur James, 23, Strutt Street, Manchester. Murray, John, F.R.I.B.A., 11, Suffolk Street, Pall Mall, S.W.1. Newman, Reginald James Walter, 6, Stratton Street, Piccadilly, W.1. Partridge, Edward John, F.S.I., Bank Chambers, Richmond, Surrey. Portsmouth, Henry Charles, Llanfair Buildings, Swansea. Pridmore, Albert Edward, F.S.I., 2, Broad Street Buildings, E.C.2. Pugh-Jones, David, F.S.I., County Hall, Cardiff. Rees, Joseph Cook, O.B.E., Parade Chambers, Neath. Rees, Thomas Taliesin, F.R.I.B.A., 64, Rodney Street, Liverpool. Reynolds, Frank Stephen, Hankow, China.

Ruthen, Sir Charles Tamlin, o.b.e., f.r.i.b.a., 33, Furnival Street, Holborn Bars, E.C.4. Sadgrove, Edwin James, f.r.i.b.a., 9a, Little James Street, Bedford Row, W.C.1. Scott, Augustine Alban Hamilton, 13, Old Square, Lincoln's Inn, W.C.2. Sharman, John Melfort, Sheep Street, Wellingborough. Sheffield, Noel Dennis, f.s.i., 9, Denman Street, S.E.1. Skipper, Charles Frederick, 64, St. Andrew's Street, Cambridge. Stockwell, Arthur, 11, Pilgrim Street, Newcastle-upon-Tyne. Sullivan, Leo Sylvester, a.r.i.b.a., 158, Fenchurch Street, E.C.3. Swanston, Capt. John Daniel, Kirkcaldy, Fife. Tanner, Henry, Junior, f.r.i.b.a., Carlton Chambers, 12, Regent Street, S.W.1. Taylor, Alfred John, 18, New Bond Street, Bath. Thomas, Charles Samuel, Salisbury Chambers, Wind Street, Swansea. Tickner, Thomas Francis, f.r.i.b.a., 14, Little Park Street, Coventry. Trehearne, Alfred Frederick Aldridge, f.s.i., Windsor House, Kingsway, W.C.2. Tubbs, Percy Burnell, f.r.i.b.a., 10, Gray's Inn Square, W.C.1. Vickery, Thos. Sidney, 50, Gresham Street, E.C.2. Wallis, Thomas, "Doric," Streatham Place, Brixton Hill, S.W. Watson, William Harold, Barstow Square, Wakefield. Wenyon, George Henry, 8, Grafton Street, W.1. Wilkins, Victor, a.r.i.b.a., 12, York Buildings, Adelphi, W.C.2.

As Members.—Butcher, Edmund Herbert, 8, Risebridge Road, Gidea Park, Essex. Cashmore, Francis Milton, a.r.i.b.a., 26, Old Burlington Street, W.1. Clough, Sydney, 100, Edith Grove, Chelsea, S.W.10. Codrington, Joseph William, 407, Kingsland Road, E.8. Geary, Frank George, 29, Lyndhurst Avenue, Streatham Hill, S.W.2. Griffiths, William, County Architect's Office, Mold, Flintshire. Harland, Norman Gregory, 20, Orchard Road, Erdington, Birmingham. Leete, Sidney Tebbutt, 43, Malvern Road, Weston-super-Mare. Leverton, Walter John Hopkins, H.M. Office of Works, S.W.1. Muir, John Brankstone, 63, Beauchamp Road, Upper Norwood, S.E.19. Nightingale, Frederick Bayliss, 38, Sackville Street, W.1. Smith, Walter James, 32, Pilgrim Street, Newcastle-upon-Tyne. Thomson, Ronald John, 59, Onslow Gardens, Muswell Hill, N.10. Thornton, Tom Walter Matcham, 38, St. James Road, Brixton, S.W.9.

Resignations. The Secretary announced the resignation of the following Members: D. J. Campkin, Hartley, Kent; and F. Hearne, Oldham.

Death. Sympathetic reference was made to the loss sustained by the Society through the death of Mr. Edwin T. Howard (Member), of Wellington, Somerset, who was elected a Member in 1896.

The Secretary reported that it was not possible to announce the winner of the Victory Scholarship and present the cheque and the Gold Medal at the present meeting, as had been hoped. The Jury had found it necessary to make some amendments to the final programme and to extend the time, and their report would not be available until the end of the year.

The proceedings then terminated.

The R.I.B.A. at the Zoo.

The very clever impressions of the A.A. artist at the Zoo on June 29th, as depicted in the Association's Journal, might well cause the uninitiated to draw unkind inferences as to the abode of the distinguished representatives of the profession, who are there shown in proximity to an inmate associated with a theory connected with the descent of man.

The Society's War Memorial Tablet.

A Tablet containing the names of Members of the Society who fell in the late war is about to be erected at the Headquarters in Bedford Square. It is desired that the Roll should be complete, and Members who have personal knowledge of the death of any of their fellow members while on active service will greatly oblige by sending particulars to the Secretary.

Unification and Registration.

The Unification Committee has been formed by the appointment of representatives by the following bodies, under the Chairmanship of Mr. John W. Simpson, p.r.i.b.a., with whom are associated two Past Presidents, Sir Aston Webb and Sir Reginald Blomfield.

Representatives of the R.I.B.A. :—Eight Fellows : Sir Banister Fletcher, Mr. Paul Waterhouse, f.s.a., Mr. C. Stanley Peach, Mr. A. W. S. Cross, Mr. Arthur Keen, Mr. E. Stanley Hall, Major Harry Barnes, m.p., Mr. James S. Gibson. Seven Associates : Mr. Horace Cubitt, Mr. Herbert A. Welch, Mr. K. Gammell, Mr. W. R. Davidge, Mr. Digby L. Solomon, Mr. G. Leonard Elkington, Mr. P. W. Hubbard. Seven Licentiates : Mr. H. Ascroft, Mr. H. R. Bird, Mr. George Carter, Mr. A. J. Penty, Mr. Francis R. Taylor, Mr. Samuel Taylor, Mr. J. E. Yerbury.

Representatives of the allied societies in the United Kingdom :—

The Aberdeen Society of Architects, Mr. George Watt (F.) ; Birmingham Architectural Association, Mr. H. T. Buckland (F.) ; Bristol Society of Architects, Mr. G. C. Lawrence (A.) ; Devon and Exeter Architectural Society, Mr. Lewis Tonar ; Dundee Institute of Architects, Mr. A. Granger Heiton ; Edinburgh Architectural Association, Mr. W. T. Oldrieve (F.) ; Glasgow Institute of Architects, Mr. Wm. B. Whitie (F.) ; Hampshire and Isle of Wight Association of Architects, Mr. J. B. Healing (A.) ; Royal Institute of Architects of Ireland, Mr. Lucius O'Callaghan ; Leeds and West Yorkshire Architectural Society, Mr. W. Carby Hall (F.) ; Leicester and Leicestershire Society of Architects, Mr. A. H. Hind (F.) ; Liverpool Architectural Society, Mr. T. Taliesin Rees (F.) ; Manchester Society of Architects, Mr. A. W. Hennings (F.) ; Northamptonshire Association of Architects, Mr. J. Alfred Gotch, f.s.a. (F.) ; Northern Architectural Association, Mr. C. S. Errington (F.) ; Nottingham and Derby Architectural Society, Mr. H. G. Watkins (F.) ; Sheffield, South Yorkshire and District Architectural Society, Mr. C. B. Flockton (F.) ; South Wales Institute of Architects, Mr. Ivor Jones (A.) ; York and East Yorkshire Architectural Society, Mr. L. Kitchen (F.) ; the Institute of Scottish Architects.

Representatives of the allied societies in the Dominions :—Africa, Mr. Herbert Baker (F.) ; Australia, Major H. C. Corlette, o.b.e., r.b.c. (F.) ; Canada, Mr. Andrew T. Taylor (F.) ; New Zealand, Mr. S. Hurst Seager (F.)

Representatives of the Architectural Association (London) :—Mr. Maurice E. Webb, d.s.o., m.c. (F.) ; Mr. G. Gilbert Scott, a.r.a. (F.)

Representatives of The Society of Architects :—Mr. Edwin J. Sadgrove (F.) ; Sir Charles T. Ruthen, o.b.e. (F.) ; Mr. A. Burnett Brown ; Mr. George H. Paine; Mr. Noel D. Sheffield; Mr. Edward J. Partridge; Mr. C. McArthur Butler.

Representatives of the Architects' and Surveyors' Assistants' Professional Union :—Mr. R. G. Llewellyn-Evans ; Mr. Chas. McLachlan (A.)

Representatives of the Official Architects' Association :—Mr. W. E. Riley (F.); Mr. Sydney Perks, f.s.a. (F.)

Representative of the Ulster Society of Architects :—Mr. N. Fitzsimons (F.)

Representatives of Architects unattached to any professional organisation :—Mr. G. E. Marshall (Liverpool) ; Mr. A. H. Mooring Aldridge (Bournemouth) ; Mr. A. M. Cawthorne (London).

The first meeting of the Committee was held on July 20th, at 9, Conduit Street, W., when there was a large gathering of representatives of the constituent bodies. The President of the R.I.B.A., Mr. J. W. Simpson, was in the chair, and the Secretary, Mr. MacAlister, having read the notice convening the meeting, the Chairman outlined the order of proceedings, the first being the appointment of a Vice-Chairman, an Hon. Secretary, and an Executive Committee. Major Barnes, M.P., F.R.I.B.A., M.S.A., proposed, and Mr. J. E. Yerbury, LIC.R.I.B.A., seconded the appointment of the President of The Society of Architects, Mr. E. J. Sadgrove, and there being no other nominations, the Chairman put the proposition to the meeting, and it was carried unanimously.

Mr. Arthur Keen, F.R.I.B.A., was unanimously appointed Hon. Secretary, and the following were unanimously elected as the Executive: The Chairman, Mr. J. W. Simpson; the Vice-Chairman, Mr. E. J. Sadgrove; the Hon. Secretary, Mr. Arthur Keen; and the following representatives of the constituent bodies:—

THE R.I.B.A.: Major Barnes, M.P. (F.), Sir Banister Fletcher (F.), Mr. J. S. Gibson (F.), Mr. H. Cubitt (A.), Mr. L. Elkington (A.), Mr. H. A. Welch (A.), Mr. J. E. Yerbury (L.).

THE SOCIETY OF ARCHITECTS: Sir Charles T. Ruthen, Mr. Noel D. Sheffield, Mr. C. McArthur Butler.

THE ARCHITECTURAL ASSOCIATION: Mr. Maurice Webb.

THE OFFICIAL ARCHITECTS' ASSOCIATION: Mr. W. E. Riley.

THE INSTITUTE OF SCOTTISH ARCHITECTS: Mr. W. B. Whitie.

THE ALLIED SOCIETIES: Mr. H. T. Buckland.

THE A. AND S.A.P. UNION: Mr. G. Ll. Evans.

THE UNATTACHED ARCHITECTS: Mr. G. E. Marshall.

The Chairman briefly outlined the various suggestions which had been made in the past for the unification and registration of the profession, so far as they were within his knowledge, and as the matter presented itself to his mind they appeared to fall within the main lines of two courses (*a*) the absorption of the existing architectural bodies into one body, and (*b*) the federation of the existing bodies under a joint governing body.

The matter was then thrown open to discussion, and after some preliminary manoeuvring for position as it were, Mr. McArthur Butler, the Secretary of The Society of Architects, gave his reasons for urging Federation in preference to Amalgamation at this juncture.

Mr. J. E. Yerbury took the opposite view, and declared for Amalgamation, and Mr. E. J. Sadgrove, the President of The Society of Architects, urged the need for united action in all matters of general interest affecting the building industry, by architects, builders, operatives, manufacturers, and others. The discussion was carried on by Sir Banister Fletcher, who favoured Amalgamation, and by Mr. T. Taliesin Rees, Major Barnes, Mr. Welch, Mr. G. Ll. Evans, Major H. C. Corlette, Mr. F. R. Taylor, Mr. Ivor Jones, Mr. Perks, Mr. G. C. Lawrence and Mr Oldrieve.

It was noticeable that several well-known architects were absent, and that some of the most distinguished of those present refrained from taking any part in the discussion. The official return of attendances shows that five representatives (three Fellows and two Licentiates) of the R.I.B.A. were absent, and also the representatives of the Scottish Institute and of the Allied Societies of Aberdeen, Birmingham, Northants, Notts and Derby and York and East York, and that the A.A., the A. and S.A.P.U., the Official Architects, and the unattached architects, were each a man short.

The meeting was chiefly remarkable for the harmony which prevailed, and for the large number of architects who apparently came to "listen and learn." In an assembly of any other professional men called together on such a subject, the Chairman would have had to keep the peace between potential speakers trying to catch his eye.

The result of the meeting was an instruction to the Executive Committee to draft and submit to the main Committee alternative proposals for the unification of the profession based on (*a*) Amalgamation, and (*b*) Federation.

Report of the Proceedings.

The Chairman, Mr. J. W. Simpson, P.R.I.B.A., in opening the discussion, said the fact of the meeting was, in itself, a proof that the profession had been unified, and that they were prepared to discuss amicably what their policy should be in the future. They met with the lessons of war before them, indeed, the desirability of unity of command was still fresh in their minds, and all bitterness had disappeared between the different sections of the profession, and they were all agreed to pursue a common purpose, and to set aside all selfish interests. It was an historic occasion in the profession. They met as a Parliament of Architects, each of them representing a body of constituents and, together, they claimed to represent every reputable member of the profession. A common end, therefore, was agreed upon, and it only remained for them to decide the best means of carrying out that object, and making the result permanent.

He had heard a great many suggestions made as to how they should proceed, and they seemed to him to present two alternatives, and there was very much to be said for both of them. The first was (A) the absorption of all existing societies into one body. That presented some obvious difficulties at the outset, but those difficulties should not prevent very full consideration being given to such a course, especially if they thought that its subsequent result was likely to be for the benefit of the profession. If, however, such a course was likely to lead to internal dissensions later on, then it would not effect the real purpose of this body, which was to unify the profession, and unification was not necessarily synonymous with amalgamation. The point was to get on to the same lines and to make every effort towards a common policy.

The second alternative was to take all the existing bodies as they were, to allow, so to speak, all the rivers and rivulets to run in the beds which they had formed for themselves, and to connect them all up with a sort of "cut," of which the force would be directed to turning the mill-wheel of Registration. That was the line of least resistance, in the initial stage, at any rate. It was for them to consider whether the ultimate flow would be more, or less, smooth than that which would be effected by scheme "A." But, essentially, the need was that whatever conclusion was arrived at should be reached by free and kindly argument and by reason, so that the profession would be practically unanimous, and, having arrived at a decision, everyone would give it, as the policy agreed upon, full support and help to make it work. Unification would be merely a phrase, unless it was based upon two great facts: the first was mutual good-will, and the second was the absence of all selfishness.

With regard to the present meeting, it might be impossible, or even undesirable, that they should finally come to a decision as to which of those policies, or what policy, they should agree upon. They had set up a sub-committee, and the great thing was to get it to work as soon as possible. Its members might be asked to draft the skeleton not of one scheme only, but of two, and circulate those outlines to the members of the main committee, who had, in their turn, to consult their constituent bodies, and meet again later to decide definitely what should be done. For the moment, he asked them not to trouble about details, the full-sized drawings, so to speak, but to set their minds on the main drawings, and consider the details later on.

After some discussion as to the procedure of the sub-committee in regard to any matters referred to it,

Mr. J. E. Yerbury said that if the sub-committee was made as widely representative as possible, they would have a better chance of getting what they wanted, and if they left it to the sub-committee to bring forward some proposal, it would require many days' discussion. They could not settle it in a month, perhaps not in a year, but if they worked on the lines suggested by the President, they would unify the profession, although he was not so optimistic as the Chairman, in thinking they had done so already, and he thought the sub-committee should be instructed to consider the constitution of the committee. Even if they arrived at a proposal satisfactory to themselves, the other members of the profession who did not belong there might not be able to accept it. Fifty-three were R.I.B.A. men, and only thirteen were from outside. He thought it would be possible for The Society of Architects and for the A.A. each to nominate ten men who are not members of the Institute. It would then be a much bigger committee, and they would get a decision which would carry something like finality with it. But if they went to the profession generally and put before them a scheme agreed to by fifty-three members of the Institute and only thirteen representatives of architects outside the Institute, he was afraid they would not arrive at the finality they required.

Mr. C. McArthur Butler said he agreed they could not go into details at present, but he thought they should have no difficulty in instructing the sub-committee now on a question of principle, as to whether the meeting favoured " Absorption," or " Federation." It was the first of the committee meetings, and an historic occasion, and one which was likely to have very wide results, and it seemed a pity that they should not consider this matter at some length, because they might not get exactly the same representatives together again without some difficulty. Therefore he hoped they would be given an opportunity of expressing their opinions on these two problems before the matter was referred to the sub-committee.

Major Barnes, interposing, said there was no scheme at present. He would have thought that at that meeting the difficulty would have been to keep the men down, but the difficulty seemed rather to be to induce them to get up.

The Chairman suggested that architects were very modest.

Mr. McArthur Butler, continuing, said they must get rid of modesty to a large extent, and he thought the time had come when the question of Absorption or Amalgamation should be finally considered. It was a mistake to look back, the past could not be recalled, and they did not know what the future held, but they had the present, and, personally, he saw very great difficulty in regard to the absorption of all existing bodies into one institution or organisation—presumably the Royal Institute of British Architects—and he was so afraid of re-opening matters with which some of them were acquainted in years gone by, and which he hoped were relegated to the limbo of forgotten things. His solution of the problem was a Federation of the existing bodies, in fact, constituting that committee as the " Architects' Federation." They had an example in France, where, on the 20th of February this year the Rules for the Federation of French Architects were drawn up, in which the existing bodies were federated on simple and broad lines, which had the approval of the whole profession. If they were federated at home on similar lines they would soon have no unattached architects. Federation would include all architectural bodies, and their members would be also members of the Federation, that is to say, they would be Federated Architects, and when an architect sought assistance from the Federated Council he would receive it, not because he was a member of any particular Society, but because he was a member of the Architects' Federation. At the present time it was possible to throw a brick, say, at a Government Department, and attract quite a lot of attention, but if they could throw a stack of bricks in cement, it would add greater weight to the argument. That was very crudely put, but he wished to re-affirm his opinion, which was very well-known to the readers of architectural and other papers, that it would be wise to take into serious consideration his proposal for an Architects' Federation. In his view, the movement would not stop at architects. The Chairman had mentioned Registration, and it would be one of the objects of the Federation to deal with that. At the present time if they went to Parliament they were told to settle their own differences first, then come to Parliament. They would be doing that under this suggestion, and there might be joint action, for there were other bodies marching in the same direction : engineers, surveyors, auctioneers; and architects might go to them and adjust matters generally, and arrange for all the interested professions to act together, but with separate Bills, each agreed to by the other parties, and then the measures would have every chance of success. There was another point in regard to federating the architectural profession. They were brought, indirectly, into contact with many other things besides buildings, and certain parties were trying to get control of the professions, and they needed to be banded together, not only for their professional protection, but also for other reasons which would occur to architects who take a wide view of this subject, and he hoped the suggestions for an Architects' Federation on broad lines would be considered by the committee that day.

Mr. J. E. Yerbury thought Amalgamation would be the best thing, and they should make every effort to include every architect in the R.I.B.A., and put him under one cover. They would then be all fighting for one thing, the future of the architect and of architecture. The reason they had no enthusiasm amongst architects was that they had no propaganda work. In every profession which was open and was going to be closed, the present generation must be willing to make sacrifices. They would have to face it, in the same way as the auctioneers, the lawyers and the accountants had done, and some of them would in the meantime have to make sacrifices for the benefit of the community, and for the infinite advantage of civic architecture in this country so that it shall stand in its proper position as a leader in the Arts. But if they approached it from the merely business standpoint and said if they were federated they would be able to get so much more in fees or be able to dictate to a Government Department, then they would be working for their own personal view, and might as well give up the idea, because they were wasting their time.

Sir Banister Fletcher said he felt that what the last speaker said lay at the root of the whole matter. Here they had an Institute which had been in existence a hundred years, and was the recognised head of the profession, doing good work for architects and architecture. Let it remain in that very strong position, but add to it such strength as is necessary to keep it so and bring it up-to-date. The Institute was the basis of the Federation which was talked about, and it might be truly said that every architect of note in this country, with the exception of those who belonged to The Society of Architects, who were also of note, belonged to the Institute or to one of its Allied Societies. He would go to any length to get outsiders in. He would elect them as Fellows, or as Super-Fellows, to get them into the Institute ; he would take in the whole body of The Society of Architects, lock, stock and barrel, because he did not think the idea of federation was a workable one, because directly they had federation they must have an expensive staff, and pay others to do the work which the Institute were capable of doing. They should try to get the Institute to so arrange this business that it shall still be the representative body of the profession. That was so important as the basis of the whole thing that he was prepared to give everything that the outside architect wanted in order to get him into the Institute, to make him one of them so that they could speak, not as they do now with several mouths, but with one united voice when anything came forward which affected the architects of this country or architecture.

Mr. E. J. Sadgrove, President of The Society of Architects, said he had not, like the last speaker, made up his mind before he had heard what the other fellow had to say. Although he had his own views in regard to many matters in connection with the profession, like lack of unity in the past, he should not say, now, whether " A " or " B " would be the better, because he believed in thoroughly thrashing both of them out and then submitting them to the general committee, so that they may consider which is the better of the two.

With regard to the Federation side of the matter being supposed to be impracticable, he should not say it would be unworkable. He did not know but what it would not be a very good thing. If the idea was to get every man who had a vested interest in architecture into the membership of the Institute or some other Society, that was a very good scheme, but there were a large number of men who practised architecture who belonged to other professions, surveyors, for instance, and auctioneers and sanitary engineers, and the like. He was not sure that it would be the best thing to have them as members of the Institute or of the Society, but he saw no reason why they should not be allowed to continue their practice under conditions arrived at by a Federation or a central body. But there are many other vital matters which the central control body should control, which should be something more than an architects' body. For instance, the Federation of Builders were proposing a National Building Code. Some architects had turned their backs on it and said : " We will have none of it." But there were some good points in it, and if the Institute and The Society of Architects could have seen eye to eye with the builders, it would have been a better thing than what had actually happened. The Society did not think it wise to turn their backs upon it, and so they went to see them, and the first interview resulted in the question : " Are not you going into this with the Institute ?" " Yes." " Why didn't you tell us so ? Let us abandon this preliminary meeting, and let us all discuss it together." That was the proper thing to do. Architects might agree a Code with the builders, but what about the Surveyors' Institution ? What about the Engineers and the Municipal Authorities ? They had all a finger in the pie, and yet they could not all be roped into an Architectural Institute. But they could be represented in a Federation, and it would be a very powerful Federation, equal to a powerful Parliament. Speaking with a united voice on such things as town-planning, public completions, documents which are issued to the profession, all housing requirements, war memorials—and he would pause on the word " memorial," to say they had heard of one suggested, and he thought the architects should have something to say about it before anything was done with regard to that memorial which it was proposed to erect somewhere in the neighbourhood of Hyde Park Corner. There were also such things as conferences with Government Departments. And then they had to tackle the multiple traders, butchers and so on who were encroaching on the work of architects. He could enlarge on that, but he only wanted to speak briefly on the salient points which he thought were so important in the matter of unity. So he had dealt with the matter not from the point of view of architects alone, but for other professional societies. No doubt the sub-committee would consider whether an architectural body as such could do that better than a Federation representative of all the institutions having a vested interest in architecture. They should consider all those things on the sub-committee and the reports which will come up as a result could be thrashed out in detail.

Mr. G. Ll. Evans, Chairman of the A. and S.A.P.U., said they had heard a plea for Fusion or Absorption, and a word for Federation. As representing the body of assistants in this country, he had no mandate and was there simply with instructions to watch. Possibly the representatives of Allied Societies had come to watch also, and if the question was put to the general committee whether they were in favour of Absorption they might vote, one way or the other, on it, but the majority of the sub-committee might vote the other way. The question was, were those who voted binding those they were sent by? It seemed to him that when the sub-committee met, they should first of all obtain from their constituents what it was they were in favour of, and then the committee would know what scheme to proceed with. But were they representing the voice and the views of the whole profession?

Mr. G. C. Lawrence (Bristol) said the next point was how the proposals were to be considered by the Allied Societies. He had been a member of an Allied Society eleven years, and a member of the Institute for nearly that time, and it had been for long clear to him that the interests of the Allied Societies and the interests of the architects in London are not always the same, or to put it in another way, that London architects were not always aware of all the conditions which architects had to deal with in the provinces. On the sub-committee they had twenty Allied Societies represented, and various London associations. The Allied Societies had one representative, and he hoped when the sub-committee met, that that representative would not allow their interests to be overlooked. He did not see how it would be possible for them in London to absorb, as an Institute, all people, and how it would properly and clearly legislate for the provinces, but he hoped that when the sub-committee had considered the matter, some way out would be found. The Bristol Society were only anxious for the interests of the profession as a whole.

The Chairman said he feared he had not made it clear that whatever instruction was given to the sub-committee, their proposals and suggestions would be sent to every member of the committee for consideration, so that every Allied Society, and their representatives, would have the opportunity of consulting their own bodies, and obtaining their views upon it. Until that had been done the committee would not come to any definite decision. All that they could hope to do that day was to give the sub-committee something to work upon, and perhaps they could get as far as to give them an indication as to whether scheme "A" or scheme "B" was preferred by them, or whether they would like to have a draft scheme on both lines. No speaker had suggested a third proposal, but there might be better than either of the other two which he had put forward. But nothing would be pushed through, because the one thing essential, if they were to have unification and be a really united body, was that they should be unanimous.

Mr. Ivor Jones (South Wales) said that if schemes "A" and "B" were put before the meeting that afternoon, the Allied representatives could not vote upon them, because they must first take the matter into consideration with their constituents and get their instructions. Therefore he thought the sub-committee should have full powers to bring one or more schemes before the committee for consideration, first notifying the various bodies before the committee meeting was held.

Mr. T. Taliesan Rees (Liverpool) suggested that the sub-committee should enquire what had been done by other societies, and take evidence, if necessary, and circulate this information to the Allied Societies, and that the Presidents of those Societies discuss it and take a vote, so that they could come with definite and precise instructions to the committee to prepare a scheme, not two or three schemes. That should be placed before the whole of the Allied Societies, The Society of Architects and outside architects, and after that, they should meet again and discuss it on that evidence, having taken the opinion of their various societies, and then give the sub-committee definite instructions when they knew what they were talking about. He might now be in favour of " A," but when they had the information from the sub-committee, he might prefer " B," or " C," and he should have the backing of his Council to come there and support one of them. His friends from South Wales and Bristol would have the same feeling in regard to having evidence to put before their Allied Societies, so that the representative could come back and give this sub-committee definite instructions to prepare a scheme.

Mr. Ivor Jones pointed out if that were done, and there was a narrow majority for one or other scheme, that would not give satisfaction.

The Chairman agreed with Mr. Jones, and said that in such a case they would be meeting with definite instructions from their constituents, and then it would be very difficult to come to any kind of terms or to give way to secure a decision. That was the practical difficulty he saw in Mr. Rees' proposal. He thought the suggestion of Mr. Jones was the more practical one, namely, that the sub-committee should draft a scheme on the general lines of what they had called " A," and which Mr. McArthur Butler called " Absorption," as against " Federation," and that they should have a scheme on both, and then the representatives would have some definite lines on which to consider the matter with their respective Societies.

Mr. Sydney Perks moved, and Mr. Ivor Jones seconded :—

" THAT IT BE REFERRED TO THE SUB-COMMITTEE TO CONSIDER AND SUBMIT SCHEMES TO THE GRAND COMMITTEE FOR THE PURPOSE OF UNIFICATION."

Major Barnes, M.P. moved as an amendment :—

" THAT THE SUB-COMMITTEE BE ASKED TO DRAFT SCHEMES ON THE LINES OF " A " AND " B. "

He thought there was nothing outside that. They were there representing separate bodies, considering the question of unification, and they had alternatives. They must either unify in an existing body, which was " A," or they must unify in a new body, which was " B." That was the first conclusion they had to come to. If they decided on " A," that involved a selection of the existing body which they would unify with. If they decided on " B," that involved the constitution of a new body. If they decided on " A," the problem would be comparatively simple ; they would be absorbed, or amalgamated, or whatever term they liked to use for it. If they decided on " B," they would have alternatives, not on federation but on the method of federating. For instance, each body would have to decide whether it was going to vest all its functions in the new body, or whether it would vest some of them and retain the remainder. But there would not be alternatives as between " A " and " B." He suggested there was no " C," and that if they asked the sub-committee definitely to consider and draft schemes " A " and " B," they were not setting any arbitrary limit upon them, but were putting a definite proposition, the solution of which in so far as it commended itself to the Grand Committee, would bring them to one thing or the other, going on or not proceeding. And, therefore, as he was sure they all desired to reap the advantages of unification, he believed there were advantages, and, speaking for himself, he was very much in the same condition as other members and was not clear as to the exact extent of the advantages in that direction ; the sub-committee would be extremely helpful in making that clear to all members of the committee, and to all their constituents.

Major H. C. Corlette (Australia), in seconding the resolution of Major Barnes, said it was a question of the manner and method under which they should either unify or federate themselves. He was sure Major Barnes had in his mind the Federation principles of the United States compared with those of Canada and of Australia. They were all different in certain elements. They had very little before them by way of alternative to union in some form, or federation in some form. But speaking as a representative of the Commonwealth of Australia, he suggested that, whether they had union or federation, they ought to provide for some form of decentralisation, because not only Australia, but other Dominions, had their own local Societies, and they were allied to the Institute, and they had the greatest respect for the functions of the Institute, and its prestige, and would like to support it in every way. But let them in any scheme, whether of union or federation, provide for devolution in some form, so that, although there might be a central Authority, they should not centralise all the authority, and take all the responsibility from those at the circumference. One speaker referred to the federation among French architects. He did not know under what principle it took place, but it was interesting to hear of federation in France, because he understood the French had always thought in the direction of centralisation. But it might be interesting to the sub-committee to have more facts put before them on the question of Federation as it had taken place in France. He suggested they should not attempt to copy the French or France too much ; they were Englishmen, and had certain principles for which they stood before the rest of the world. They were a little inclined to disparage their own powers and abilities, but there was still a good deal of ability and originality in the old country.

Mr. Taylor, in supporting the resolution moved by Major Barnes, said that by instructing the sub-committee to obtain evidence and get particulars from every representative, they would be enabled eventually to prepare a scheme satisfactory to the whole of the profession. Moreover, by considering " A " and " B " they would be able to decide which was the better. Absorption, to his mind, had certain disadvantages which would be brought forward by the members of the sub-committee, as would also the advantages which may accrue to the whole profession. With regard to " B " which at the moment seemed to him to be the best, though he had an open mind on the question—if the sub-committee were able to show any loopholes in " B " which might decide the committee in favour of " A," he should be pleased, if his constituents were of that opinion, to fall into line, and in that way they should arrive at a satisfactory conclusion.

Mr. Herbert A. Welch said that on reflection and consideration of all that had been said, he felt, as Major Barnes did, that it was either " A " or " B," and that a course totally outside that was out of the question. Therefore he would like to ask that those members who formed the Unification Committee, but who did not form the sub-committee, would not go away feeling that they had done all that they should do until the sub-committee's report came up. He asked them for all the help they could give the sub-committee in the meantime, from time to time, as they were sitting, so that they could bring out the best to their full satisfaction.

Mr. W. T. Oldrieve (Edinburgh), in supporting the amendment, said that those who lived a long way from London and were anxious not to come up very frequently, would like, if possible, to know if there could not be some kind of sub-section work in relation to this great question. Few of them hoped to be able to get very much forward that day. It was impossible to expect to do more than set the ball rolling, and when they reflected that they had this question under discussion thirty years ago, they could afford to wait a little longer, and if they could get something done in two or three years, they ought to feel satisfied, and those who were not immediately at work on this should trust the sub-committee, and not expect too much from them. Let them, as had been suggested, do all they possibly could to help, but his object was to suggest that the question might be referred to sub-sections presently, so that widely-separated members might be employed upon some sectional work. For instance, there were four separate aspects of the question. What was being done in the matter of unification by other professions? The Accountants and others had all had the same battles to fight years ago, and one section might ascertain how they went to work successfully. And affairs in other countries might be investigated, for other countries had had the same thing to do in regard to this. Another section might work on Parliamentary procedure, so that they might not repeat the blunders which others had made in the past when it was a matter of having a definite Statute. Then the question of qualification might be taken up. It was such a pity, at a great meeting representing the whole profession, that they should waste breath too much on cross-questioning and mere talk to no purpose. Therefore he asked that the committee should take up the question of sectional work so that those from a distance may have their time saved.

Mr. Perks moved "That the question be now put." With the consent of his seconder, he withdrew his resolution.

The Chairman said that as Mr. Perks had withdrawn his resolution, which was practically the same as Major Barnes', only for some difference in definition, it had been moved by Major Barnes, and seconded by Major Corlette, "that it be an instruction to the sub-committee that the sub-committee draft and submit to the Grand Committee alternative proposals for unification based respectively on Absorption and Federation." He put that to the committee. The motion was carried unanimously.

A vote of thanks to the Chairman was carried by acclamation, and the proceedings terminated.

Addresses Wanted.

MEMBERS.

The Society's Journals sent to the following Members, etc., have been returned through the post marked "Gone away." The Secretary will be glad to hear from anyone who can put him in communication with any of these Members.

C. A. Aish (London), H. C. Anderson (Heywood), J. Bevir (Lymington), G. A. Birkenhead (Vancouver), A. E. Chasemore (Upham), F. Clemes (Grimsby), P. Rogers Cooke (Germiston, South Africa), E. N. Cubitt (Brentwood), G. W. Davies (Grimsby), J. L. Donnelly (Dublin), R. K. Fearnside (Wembley), S. A. Hall (London), J. M. Hatfield (Barnes), T. J. Holland (London), R. R. W. Hyde (Worthing), H. Jackson (London), David J. Jones (Ealing), A. E. King (Mansfield), W. E. Knapman (Exmouth), W. Leicester (Manchester), R. T. MacArthur (Birmingham), Cecil T. Mitchell (Johannesburg), A. C. Payne (London), R. T. Perry (Vancouver), Ernest Rose (Rhodesia), C. D. Rutter (Wrexham), J. B. Sanders (Crawley), C. F. Stevens (London), D. G. Tanner (Polegate), J. J. Taylor (Darlington), T. G. Williams (Liverpool).

STUDENTS.

A. C. Bedington (Newquay), W. M. N. Haigh (Baildon), Arthur Oates (South Shields), W. G. Parkin (Hampstead), C. H. Roberts (London), J. R. Thomas (Colchester), S. E. Urwin (Birmingham), R. C. Vander Schyff (Pretoria).

Registration in the U.S.A.

The following synopsis from the handbook issued by the New York University shows at a glance the statutory requirements for the practice of architecture throughout the United States. There are four distinct lines of statutory requirements: (1) preliminary education; (2) professional training; (3) licensing test; (4) registry. These four items with (5) the title of the executive officer and the administrative board, are given uniformly in this synopsis. If there are no statutory requirements the word "none" covers the item.

CALIFORNIA.—(1) None; (2) none; (3) examination; (4) with the recorder of the county of residence annually; (5) secretary, State Board Architecture, Northern district, Sylvania Schnaillacher, 1039 Phelan Bldg., San Francisco; Southern district, Frederic L. Roehrig.

COLORADO.—(1) None; (2) none; (3) examination or certificate from a similarly constituted board of another State; (4) with the Secretary of State, and annually with the Board; (5) Secretary, State Board of Examiners of Architects, T. Robert Wiegen, 432, Empire Buildings, Denver.

IDAHO.—(1) Approved high school course or its equivalent, and in addition a two-year course in English and mathematics such as is required in an approved B.A. course; (2) three years' practical experience in the office of a reputable architect; (3) examination or, alternatively, graduation from an approved architectural school or registration as an architect in another State whose standard equals that of this Board; (4) with the secretary of the State; (5) secretary, State Board of Examiners of Architects.

ILLINOIS.—(1) None; (2) none; (3) examination; (4) with the clerk of the county of practice, annually; (5) Secretary, Department of Registration and Examination, Francis W. Shepardson, Springfield.

LOUISIANA.—(1) Good primary education; (2) none; (3) examination or diploma from an approved school of architecture; (4) with the district court clerk of the parish of residence, and annually with the Board; (5) Secretary, Board of Architectural Examiners, Charles A. Favrot, 305 Baronne St., New Orleans.

MONTANA.—(1) None; (2) none; (3) examination or a license from another State Board; (4) with the clerk and recorder of the county of residence, and annually with the State Treasurer; (5) Secretary, Board of Architectural Examiners.

NEW JERSEY.—(1) None; (2) none; (3) examination or a license from a similarly constituted Board of another State, or membership in the American Institute of Architects; (4) with the Board, annually, and with the Secretary of State; (5) Secretary, State Board of Architects, Hugh Roberts, First National Bank Buildings, Trenton.

NEW YORK.—(1) Approved high school course or the equivalent, and in addition such course in mathematics, history and one modern language as are included in an approved two-year B.A. course; (2) at least five years' practical experience in the office of a reputable architect; (3) examination or graduation from an approved architectural school, with three years' experience or registration in another State or country having standards equal to that of this Board; (4) with the Board of Regents; (5) Secretary, State Board of Examiners and Registration of Architects, William P. Bannister, 67, Wall Street, New York.

NORTH CAROLINA.—(1) Prescribed by the Board; (2) prescribed by the Board; (3) examination or a certificate from a similarly constituted Board in another State or membership in the American Institute of Architects; (4) with the clerk of the superior court of the county of residence; (5) Secretary of the Board of Architectural Examination and Registration.

North Dakota.—(1) Approved high school course or its equivalent; (2) three years' practical experience in the office of a reputable architect; (3) examination or a license from another State Board whose standard equals that of the Board, or membership in the American Institute of Architects; (4) with the Secretary of State, and annually with Board; Secretary, State Board of Architecture, Arthur Van Horn, Bismarck.

South Carolina.—(1) None; (2) at least two years' experience in architectural work; (3) examination or graduation from an approved school of architecture; (4) with the Board, annually; (5) Secretary, State Board, Architectural Examiners, George E. Lafaye, Columbia.

Utah.—(1) None; (2) none; (3) examination; (4) with the Board, annually; (5) Secretary, State Board of Architecture.

Wisconsin.—(1) None; (2) at least five years' practical experience in the office of a reputable architect; (3) examination, or a satisfactory certificate from a recognised architectural school, with three years' registration with the Board of another State or country whose standards are not lower than those of this Board; (4) with the Industrial Commission; (5) Secretary of the Board of Examiners of Architects, Arthur Peabody, State Architect, Madison.

An analysis of the above shows that out of thirteen States which have statutory registration, nine have no definite standard of preliminary education, two require the equivalent of a B.A. degree, and two a good primary standard. In regard to professional training, eight have no standard, and the rest rely on three to five years' pupilage. The licensing test is in every case by examination, with the alternative in eight instances of a course at an approved architectural school, or a certificate of registration in some other State of equal standing, or membership of the American Institute of Architects.

"Luxury" Building.

In an important letter, The Society of Architects insist on the unwisdom of penalising one section of industry in order to benefit another, and urges the public to think of the inevitable disastrous results of such a policy. We also agree that if the Ministry were to cease its abortive housing efforts and hand the whole thing over to the private enterprise of architects, builders and operatives, the houses which the people want would soon be provided, without any interference with the building industry, already sorely distressed.—*East London Observer.*

"Even if the output of bricks is increased 250 per cent., it will be 15 or 20 years before the present shortage (of houses) is overtaken."

These words were uttered nearly a year ago by Sir Charles Ruthen, a member of The Society of Architects, and, judging by the progress of the much-boomed housing schemes, his pessimism was more than justified. The Government has failed miserably in its housing of the people stunt, and, in spite of its historic "no-luxury-building" cry, new kinemas, on which huge sums of money are lavished, continue to appear in every district, and the erection of new profit-making establishments goes on without hindrance.—*Daily Herald.*

Westminster Abbey Fabric Repairs.

Mr. W. R. Lethaby, Surveyor of Westminster Abbey, in an article in *The Times.*

The repairing of the Abbey buildings must have been continuous from the time when the scaffolding was struck, and it will necessarily continue to the end. It is not possible to apply any once-for-all policy : it is a question of constant attention and expenditure. All the great buildings of cathedral scale need repair year by year, and Westminster especially so, because of the acid and disintegrating nature of the London atmosphere, and also, perhaps, because of incessant vibration caused by heavy traffic.

During the last century a very large aggregate must have been expended on even absolutely necessary repairs. The last heavy piece of work of this kind, completed only about two years ago, was the practical renewal, or rather re-renewal of the external masonry of the south transept. This had been cased over about the year 1705, by the general advice of Wren, with new facing work. It was carefully done in a way, but the stones were very thin—only three and four inches thick—set on edge with practically no bond. I believe they called the process " flagging," and they must have trusted to the many necessary turns around the buttresses to give it stability. It answered wonderfully for about two centuries, and then it was found that it was " coming away," like a damp wallpaper, from the solid work behind, and the damp was here also the cause. This thin and rotted skin had to be entirely removed—a work of difficulty, and indeed of danger—to be replaced by good, well-bonded masonry in Portland stone. As patches of this loose work were removed, the original faces of the 13th century building thus revealed were found to be weathered into shapelessness. The original stone was from quarries at Reigate, and the casing had been executed in Oxfordshire stone. Neither of these will now stand the atmospheric conditions of big cities. Experience has shown that Portland stone, of which St. Paul's Cathedral is built, may best be trusted to resist modern London requirements. This stone has been used for all external repairs done during the last 20 years.

At the present time the works more immediately requiring attention are the external masonry of Henry VII.'s Chapel, especially the clerestory, flying buttresses and turrets, and also the great western towers. Henry VII.'s Chapel was refaced about a century ago so completely that hardly one really ancient stone of the exterior remains. The interior, however, on the contrary, has fortunately been little touched, and remains authentic medieval work. The external casing was very carefully done, but here again the stone was not of a kind and quality to stand long against the London air attack. Much of it is badly decayed, and projecting parts have fallen away.

The great western towers, built about 1730-40, are of carefully selected Portland stone, which has stood admirably on the surface ; but here, unfortunately, iron cramps and bars were used in the construction, with the consequence that as they rust they burst off parts of the external face, and fragments frequently fall. Any extensive repairs to these towers will require heavy and costly scaffolding, thus greatly increasing the necessary expenditure.

The parapets of open quatrefoils are in many places much decayed, but again these are not of original medieval work. Indeed it is true of the main fabric as of Henry VII.'s Chapel that hardly an original external stone remains, and some parts, such as these parapets, must have been renewed more than once. So far as I know, there is no immediately dangerous structural failure like the sinking of foundations or moving of the vaults, but it seems obvious that to keep the buildings in efficient order will require an ever-increasing expenditure.

Besides the larger works such as those described, there is an even more constant stream of minor repairs, such as relaying worn pavements, keeping the lead roofs in condition, renewing broken glazing, and cutting out single stones which have perished.

ARCHITECTURAL UNITY IN FRANCE.

The project proposed by the Société Centrale des Architectes Françaises, looking toward the amalgamation of the principal French architectural societies, has become an accomplished fact, the program for unification as put forward by the Société Centrale having been formally adopted by the Société des Architectes Diplômés, and the Association des Architectes Provinciales. Undoubtedly this marks an important step in the history of modern architectural practice in France. Divided councils and cancelled effort were too clearly condemned by war to let the lesson pass unnoticed. Architectural unity—a world-wide unity—is the program of to-day, and toward the attainment of that unity the profession should work unceasingly.—*The Journal of the American Institute of Architects.*

Legal Status of the Profession of Civil Engineering.

Sir J. Purser Griffith, in the course of his Presidential Address to the Members of the Institution of Civil Engineers last November said :—There is a second problem with which we are faced. Has the time come for some legal status to be sought for the profession of the civil engineer, not only in the interest of the civil engineer, but also of the public at large ?

The founders of our Institution hoped and expected that Membership of the Institution would become the recognised stamp of the trained civil engineer, and that the public would thereby be protected and enabled to select fully qualified men to undertake the design and construction of public works.

Thirty-five years ago efforts were made to secure by Act of Parliament the registration of qualified architects, engineers, and surveyors, but the Bill was opposed by this Institution and withdrawn by its promoters before its second reading. The grounds of the opposition of the Institution are set forth in a statement of the Council against the second reading of the Bill. They are to be found on pages 176 to 178 of the ninety-fourth volume of the "Minutes of Proceedings." This statement formed the basis of the petition to the House of Commons, which was duly presented by Mr. Alfred Giles, then a Vice-President of the Institution. A generation has since passed away, and we are again face to face with the same problem.

Your Council recently decided to test the views of the corporate Members of the Institution, and submitted the following form of enquiry to those resident in the United Kingdom : "I, approve of the Institution of Civil Engineers taking steps to obtain statutory powers to prescribe the qualifications and to conduct examinations for admission to the profession of civil engineering, to keep a register of civil engineers, and to prevent persons who are not fully qualified from holding themselves out as members of that profession." Ninety-seven per cent. of the replies were in the affirmative. That I view as a distinct direction to seek the necessary powers. It is not claimed or intended that every qualified civil engineer must be a Member of this Institution, but that no one should claim to be a civil engineer without being suitably and legally qualified. We do, however, desire that Membership of this Institution shall be an undoubted proof of the highest qualifications.—*Civil Engineering.*

Rules of the Federation of the Societes Francaises d'Architectes.

OBJECT.

1.—The Federation includes all French architectural societies whose rules are in conformity with those of the Federation, and who adhere to the Code of Professional Ethics formulated at the Congress at Bordeaux in 1895 and amended in 1912.

2.—The aims of the Federation are :—

(*a*) The unification and co-ordination of the work of French architects, in order to give more weight to their artistic, scientific, and economic attainments, and enable them to be of the greatest service to the community.

(*b*) To represent and defend the general interests of Architecture and the professional interests of the Architect.

(*c*) To insure in the Building Industry the setting up of a standard of ethics similar to that prescribed for the members of professional organisations.

3.—The Fédération des Sociétés Françaises d'Architectes was founded on February 18th, 1920, by :—

The Société Centrale des Architectes Français.
The Société des Architectes diplômés par le Gouvernment.
The Société Nationale des Architectes de France.
The Union Syndicale des Architectes Français.
The Société des Diplômés de l'Ecôle Spéciale d'Architecture.
The Association Provinciale des Architectes Français.
The Société de Défense mutuelle des Architectes Français.

Every French Architectural society regularly constituted and observing the Code of Professional Ethics referred to in Article 1 is eligible to join the Federation.

4 and 5.—The admission of Societies will be subject to the payment of an Entrance Fee and an Annual Subscription to be fixed by a By-Law, and the privilege of an Associate Society will be lost :—

(1) By resignation ; (2) by expulsion by the Council for some grave offence ; (3) for non-payment of subscription.

6.—The Federation is governed by a Council composed as follows :—

(*a*) The President ; (*b*) the Presidents of five Parisian and the five Provincial Societies having the greatest number of members in October ; (*c*) Members elected by the Federated Societies in proportion to the number of their members, in a manner to be designated by a By-law.

The first Council is to be elected for a period of three years, when a fresh Council will be elected by the votes of the Federated bodies. Members of Council who have served for three years are not eligible for re-election for a period of one year.

Presidents of Federated Societies who are *ipso facto* members of Council (see Rule (*b*) above) and who in the meantime cease to be Presidents of their Society, will remain Members of the Council, and will continue to exercise the rights with which that office invests them until the succeeding Council election, when their successor in the Presidency of their Society will take their place on the Council of the Federation.

7.—Every year, at the end of the Session, the Council will elect an Executive Committee of ten members, including the President, three Vice-Presidents, two Secretaries, a Treasurer, and three other members. It will elect its Chairman from amongst its members, and will meet, if possible, every three months, and may be convened at any time by its Chairman on the request of four members of the Council. Three members form a quorum. To pass any resolution, a simple majority only is required ; in the event of a vote being equally divided, the Chairman has a casting vote.

The Executive has full powers to administer and direct the general business of the Federation, and must see that any measures it may consider necessary are carried out.

8.—The President has full power in all cases of urgency to intervene on behalf of the Federation. The President has power to sign all documents on behalf of the Federation, the signature of which is necessary as the result of any decision by the Council. In case of his inability to act, he will delegate his authority to a Vice-President or any Member of the Council.

9.—The Federated Societies are represented at General Meetings by delegates elected each year in proportion to the strength of their membership, as follows :—

Societies with from 10 to 50 members—One delegate.

Societies with more than 50 members—One delegate for every 50 or fraction of 50 members.

Each delegate has 50 votes at General Meetings, and is authorised to bind his Society up to a limit to be fixed by a By-law.

10.—In case of any complaint being made against a Federated Society, or against any member, of a breach of the Code of Professional Ethics, the Council will constitute itself a Disciplinary Committee to examine the complaint. The enquiry will be held *in camera*, at which the President of the Society affected will be present or represented, and the Committee will deal with the complaint as it considers best.

No Federated Society, under penalty of expulsion from the Federation, may suppress any complaint against one of its members, or fail to carry out any adverse decision of the Council against one of its members.

11.—Members of the Council and delegates appointed for that purpose by the Federated bodies will form the General Meeting. This meeting will be held during the Annual Congress of Architects to elect the Members of the Council of the Federation, and transact other business.

An Extraordinary General Meeting may be called by the Council whenever they think it is necessary, or may be demanded by not less than four Federated bodies, and a resolution put to the meeting only requires a simple majority of those present, and voting, for a decision thereon.

12.—The Rules can only be amended with the consent of the Council, and an Extraordinary General Meeting convened for the purpose can only pass amendments by a majority of two-thirds of those present, and voting at the meeting, who must represent at least half the total votes of the Federation.

13.—The Dissolution of the Federation can only be brought about with the consent of the Council and at the Extraordinary General Meeting called for that purpose at least two-thirds of those entitled to vote must be present, and in order to be valid, such a resolution must be passed by a majority of two-thirds of those present.

In the case of the Dissolution of the Federation the future of the Associate bodies will be discussed at a General Meeting.

14.—A By-law to be passed by a General Meeting will lay down the procedure of voting under Article 12 and the necessary conditions to ensure the carrying out of the present Rules, and such By-law is always subject to amendment.

15.—The Headquarters of the Federation is in Paris, at the Headquarters of the Société Centrale des Architectes.

16.—Full power shall be given to a Member of the Council to interpret these Rules.

Empire Timber Exhibition, 1920.

This Exhibition was held in London last month, and was organised by the Department of Overseas Trade with the object of bringing into more universal use the numerous, though little known, timbers of the Empire.

Britain has hitherto been largely dependent on outside sources for its supplies of timber, the proportion during the past five years being 88 per cent. During the war many foreign sources of supply were cut off, and recourse was had to Empire and home-grown products, with results which justify the hopes that better and more extended uses may be made of them under peace conditions.

The catalogue of exhibits is justly described as a book of reference for architects and all other wood users, and its various sections containing statistics of the most valuable kind. Of particular interest is the section dealing with the many kinds of timber that may be grown successfully in the British Isles and with their economic value, from which we extract some of the following information.

The recent war showed that the use of timber in ever-increasing quantities was an essential to the success of many military operations, and one of the objects of the Exhibition was to demonstrate the necessity for a properly organised Forest Service to deal with questions of national sylviculture and the necessity for the public to take an intelligent interest in the production and use of home-grown timber.

At one period British timber held a world-wide reputation. British ships constructed of British oak were pre-eminent. The same timber was held in high esteem for building purposes, and was employed extensively in cabinet and other work. Scots pine was the only wood used in many of the ancient Scottish castles, where it has withstood the wear and tear of centuries, to remain sound until the present day. English ash and elm entered largely into wheelwrights' work; beech occupied an important position in the furniture trade; British box was esteemed by engravers, and so on.

Some of these woods still remain popular for certain work, but for various reasons foreign timber had, before the war, largely displaced that of home growth, and several kinds of wood that had from time immemorial enjoyed a large reputation for strength, durability and beauty of finish, were neglected and looked at askance by architects, builders and manufacturers. Foreign wood, sometimes distinctly inferior in quality, placed upon the market in an attractive manner, came into fashion, and the more solid British product was neglected. Although the importance of British oak is a tradition, we have the anomaly of architects and others refusing to specify British oak for panelling, flooring, and other purposes, on the plea that it is unsuitable and inferior to wood of foreign growth, although panelling and staircases of undoubted British oak are a feature of many old English homes, where they have stood the test of centuries, and are sometimes used again in new houses when old structures are demolished. And oak is not an isolated instance of fashion or prejudice destroying an industry.

The war created a reaction to a certain extent. Imported wood became more scarce, and people who had relied upon it were obliged to turn to the home-grown product, and they were agreeably surprised to find that it possessed virtues with which they were unacquainted. But the best home-grown timber was comparatively scarce, and it was only by the courage of the few who, in times past, in face of almost overwhelming discouragement, continued to plant trees, often without hope of adequate return, that it was possible for the work of the country to be carried on and the needs of the Army met during those four darkest years of European history.

But it was at a high price, for our already inadequate woodlands were seroiusly depleted, and the stock of growing timber in the British Isles was never lower that at present.

Various methods have been suggested to remedy this, and thereby place the country in a safe position should future trouble arise. But the only practical means of dealing successfully with the question is for the whole electorate of the British Isles to agree in this particular instance, to disregard creeds and politics, and back up in a body the thoroughly-trained and competent men who have taken the forestry question in hand.

Apart from the possibility of Britain's isolation in some future catastrophe, and the serious curtailment of timber supplies from abroad, there is the menace of the gradual depletion of the forest areas in other countries to consider. This may become so acute that it will be necessary for certain countries to stop exportation. The possibility is recognised by many nations, and every country should do her best to safeguard her interests by growing as much timber as possible.

But if the cultivation of trees must be left largely to trained men, every man and woman in the country can help the cause. If timber must be grown, it must be on business lines, and in time, the National Forest Service, and the privately owned forest, must be self-supporting and capable of producing a dividend on invested capital. To help in this, users of wood should insist upon home-grown wood being used whenever possible for any work they may have in hand, whether it be for furniture, building, small domestic articles, or any other purpose.

There are also other considerations in favour of the extended cultivation of trees, and particularly for planting them over extended areas. Not only do they add to the beauty of the country, and make it a healthier place of residence, but wooded areas make work, encourage industry, and are an incentive to settled rural life. The towns of Chesham and High Wycombe are instances of towns that owe their prosperity largely to the beech woods of the Chiltern Hills. In both towns many people are employed upon wood work, of which beech is probably the commonest wood used. In the same way other industries have originated, such as basket work near the willow beds of Lancashire, Leicestershire, and other places; the manufacture of tool handles in districts where ash is common, etc. With the extension of woodlands these industries might be multiplied indefinitely.

Of certain timbers there is bound to be a shortage for many years, but oak, elm, ash, poplar, willow, hornbeam, sweet chestnut, beech, birch, sycamore, alder, pine, spruce, larch and silver fir, are capable of providing a large quantity of timber. Woods of which smaller quantities are available are: Yew, holly, apple, pear, walnut, thorn, evergreen oak, cherry, Douglas fir, horse chestnut.

Examples of these woods were exhibited, together with articles manufactured from many of them.

The Society of Architects took an active interest in the Exhibition, and was represented on the Advisory Committee by Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., Vice-President. The Society paid an official visit to the Exhibition on July 13th, but the somewhat short notice received militated against a large attendance of Members on that occasion. Those who were able to attend were conducted round the Exhibition and hospitably entertained, and on the following day the President, Mr. E. J. Sadgrove, was one of the guests at the luncheon given by the Agent-General for Western Australia.

If the attendance of architects and the public on the day we were present was a fair average, the reference in the excellent catalogue to the necessity for the general public shaking off its apathy and taking an intelligent interest in the subject, is amply justified.

General Housing Memorandum No. 31.

Fees payable to Architects and Quantity Surveyors in connection with State-aided Housing Schemes.

REVISED SCALES AND CONDITIONS.

The Minister of Health has had under consideration the question of the fees payable to Architects and Quantity Surveyors in private practice for professional work in connection with State-aided housing schemes, and has decided that the scales of fees and the arrangements laid down in General Housing Memorandum No. 4, issued in September, 1919, shall be revised in certain respects. The revised scales are set out below and have been framed on the assumption that properly qualified members of the respective professions will be employed.

No charge will be allowed in the Housing Assisted Scheme Accounts in respect of the preparation of schemes which are not approved by the Ministry of Health.

The revised scales of fees and conditions are to apply to all State-aided housing schemes where a contract for the constructional work has not been let at the date of this memorandum, July 8th, 1920.

The scales will apply to every scheme, although two or more architects may be employed. In any case, however, of a scheme for over 250* houses in which the local authority or public utility society proposes to employ a single architect or firm of architects, the Ministry should be consulted before any arrangements as to fees are made.

Save in exceptional circumstances, it is not desirable that any one architect or firm of architects should be entrusted with more than 250 houses in any one scheme.

The scales of fees cover the ordinary variations in type of house and such modifications as are made to avoid monotony in appearance, and are intended to include all necessary duties of an architect and surveyor incidental to the carrying out of the work, including such duties as are involved in complying with the requirements of the Ministry of Health.

The conditions of engagements of architects and surveyors shall be those which are customary in the respective professions ; for example, generally, such as the conditions prescribed by the Royal Institute of British Architects and The Society of Architects, in the case of the engagement of architects.

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* Certain points in the memorandum, No. 31, issued by the Ministry, were reserved for settlement between the representatives of the R.I.B.A., The Society of Architects, and the Ministry of Health.

It has since been agreed that up to 500 houses, the scale as it stands will apply.

For schemes containing more than 500 houses, the Ministry will consider each case on its merits, and before giving a decision they will consult the R.I.B.A. and The Society of Architects.

The term "single architect" means a single architect or firm of architects, and the scale applies to any number of houses where more than one architect or firm of architects is employed.

Revised Scale of Fees.

I.—Architects.

A.—*Preparation of Lay-out Plans.*

For the preparation of a plan or scheme from existing maps, showing roads, builders' plots and buildings in block, including :—

(1) Conferences with local authorities and their officials ;
(2) Surveying, levelling and preparation of contour plan ;
(3) Lay-out plan (where necessary) to 1/2,500 scale ;
(4) Detailed lay-out plan or plans to 1/500 scale ; but exclusive of the preparation of detailed plans of buildings :

For the first 25 houses	£1 per house.
For the next 75 houses	10*s*. ,,
For the remainder	7*s*. 6*d*. ,,

In cases where the number of houses has not been determined, the fees shall be based on an average of 10 houses per acre.

Where a fully contoured plan of the site is provided by the local authority, a deduction shall be made in respect thereof, from the fees above stated, of £1 per acre.

B.—*Roads and Sewers.*

For preparing working drawings, specifications and quantities for roads and sewers in accordance with the lay-out plans prepared under Section A, advising on the same and on the preparation of contract, furnishing to the contractor one copy of the drawings, specifications and quantities, general supervision, issuing certificates, measuring up, passing and certifying the accounts :—

For the first 25 houses	£2 per house.
For the next 75 houses	£1 ,,
For the remainder	15*s*. ,,

C.—*Cottages and Flats.*

For taking instructions, preparing sketch designs, making approximate estimate of cost, preparing drawings and specifications, obtaining tenders, advising on tenders and on preparation of contract, selecting and instructing consultants, furnishing to the Contractor one copy of the drawings and specifications, and such other details as are necessary for the proper carrying out of the works, general supervision, issuing certificates for payments, and passing and certifying accounts :—

(*a*) For schemes comprising any number of houses up to 250 :—
5 per cent. upon the first 12 cottages or flats.
2½ ,, ,, next 60 ,, ,,
1½ ,, ,, ,, 178 ,, ,,

(*b*) For schemes comprising 251 to 500 houses :—
5 per cent. upon the first 12 cottages or flats.
2½ ,, ,, next 60 ,, ,,
1½ ,, ,, ,, 178 ,, ,,
Upon the next 250 cottages or flats the percentage stated in (*a*) less 7½ per cent.

(*c*) For schemes comprising 501 to 750 :—
5 per cent. upon the first 12 cottages or flats.
2½ ,, ,, next 60 ,, ,,
1½ ,, ,, ,, 178 ,, ,,
Upon the second 250 cottages or flats the percentage stated in (*a*) less 7½ per cent.
Upon the third 250 cottages or flats the percentage stated in (*a*) less 15 per cent.

(*d*) For schemes comprising 751 to 1,000 houses :—

5 per cent. upon the first 12 cottages or flats.
2½ ,, ,, next 60 ,, ,,
1½ ,, ,, ,, 178 ,, ,,

Upon the second 250 cottages or flats the percentages stated in (*a*) less 7½ per cent.

Upon the third 250 cottages or flats the percentages stated in (*a*) less 15 per cent.

Upon the fourth 250 cottages or flats the percentages stated in (*a*) less 20 per cent.

(*e*) For schemes comprising over 1,000 houses :—

5 per cent. upon the first 12 cottages or flats.
2½ ,, ,, next 60 ,, ,,
1½ ,, ,, ,, 178 ,, ,,

Upon the second 250 cottages or flats the percentages stated in (*a*) less 7½ per cent.

Upon the third 250 cottages or flats the percentages stated in (*a*) less 15 per cent.

Upon the fourth 250 cottages or flats the percentages stated in (*a*) less 20 per cent.

Upon the fifth 250 cottages or flats and subsequent blocks of 250, the percentages stated in (*a*) less 25 per cent.

Limitation of Amounts upon which Full Scale Fees may be charged.

The maximum amounts upon which full scale fees in respect of cottages or flats may be charged are as follows :—

Type of Cottage or Flat.	Maximum amount.
A2.—Non-parlour with 2 bedrooms	£750
A3.—Non-parlour with 3 bedrooms	850
B3.—Parlour with 3 bedrooms	950
B4.—Parlour with 4 bedrooms	1,050

Where the actual cost exceeds the above maximum amounts, the fees payable on the excess above the maximum shall not exceed one-third of the ordinary scale fees applicable in the particular case.

In all cases comprising one scheme, but where the houses are situated on different and distinct sites some distance apart and requiring separate supervision, the architect may charge in addition to the fees set out above, and subject to the limitation of the amounts on which full scale fees may be charged, one-half per cent. on the cost of each house erected on any such sites containing not more than 12 houses.

II.—QUANTITY SURVEYORS.

(*a*) For the preparation of bills of quantities in respect of each separate site or scheme, the charge to be based upon the amount of the accepted tender, or, where no tender is accepted, upon the estimated cost of the work, subject in either case to the limitation hereinafter mentioned :—

2 per cent. upon the first 12 cottages or flats.
1 ,, ,, next 60 ,, ,,
⅗ ,, ,, ,, 178 ,, ,,
½ ,, ,, ,, 250 ,, ,,
⅛ ,, ,, remainder, provided that no type or design is applied to less than 50 cottages or flats.

Site, road and drainage work to be regarded as appurtenances of the buildings.

Limitation of Amounts upon which Full Scale Fees may be charged.

The maximum amounts upon which full scale fees in respect of cottages or flats may be charged are as follows :—

Type of Cottage or Flat.	Maximum amount.
A2.—Non-parlour with 2 bedrooms	£750
A3.—Non-parlour with 3 bedrooms	850
B3.—Parlour with 3 bedrooms	950
B4.—Parlour with 4 bedrooms	1,050

Where the actual cost exceeds the above maximum amounts, the fees payable on the excess above the maximum shall not exceed one-third of the ordinary scale fees applicable in the particular case.

In the case of any scheme for more than 2,000 houses where a single surveyor (or firm of surveyors) is employed, it will be open to the local authority or public utility society carrying out the scheme to make a special agreement as to fees with the surveyor, subject to the approval of the Minister of Health.

(*b*) 2 per cent. in respect of administrative blocks and other unit (non-repeat) buildings such as laundries, repair workshops, &c.

(*c*) For alterations to and conversion of old buildings :—

2½ per cent. where the accepted tender or the estimated cost does not exceed £5,000.

2 per cent. where the accepted tender or the estimated cost exceeds £5,000.

(*d*) Measuring and making up account of variations consequent upon alterations in design including foundations :—

1½ per cent. upon gross amount of additions.
1 ,, ,, omissions.

(*e*) Adjusting contract price consequent upon changes in cost of labour and checking and considering claims in respect thereof :—

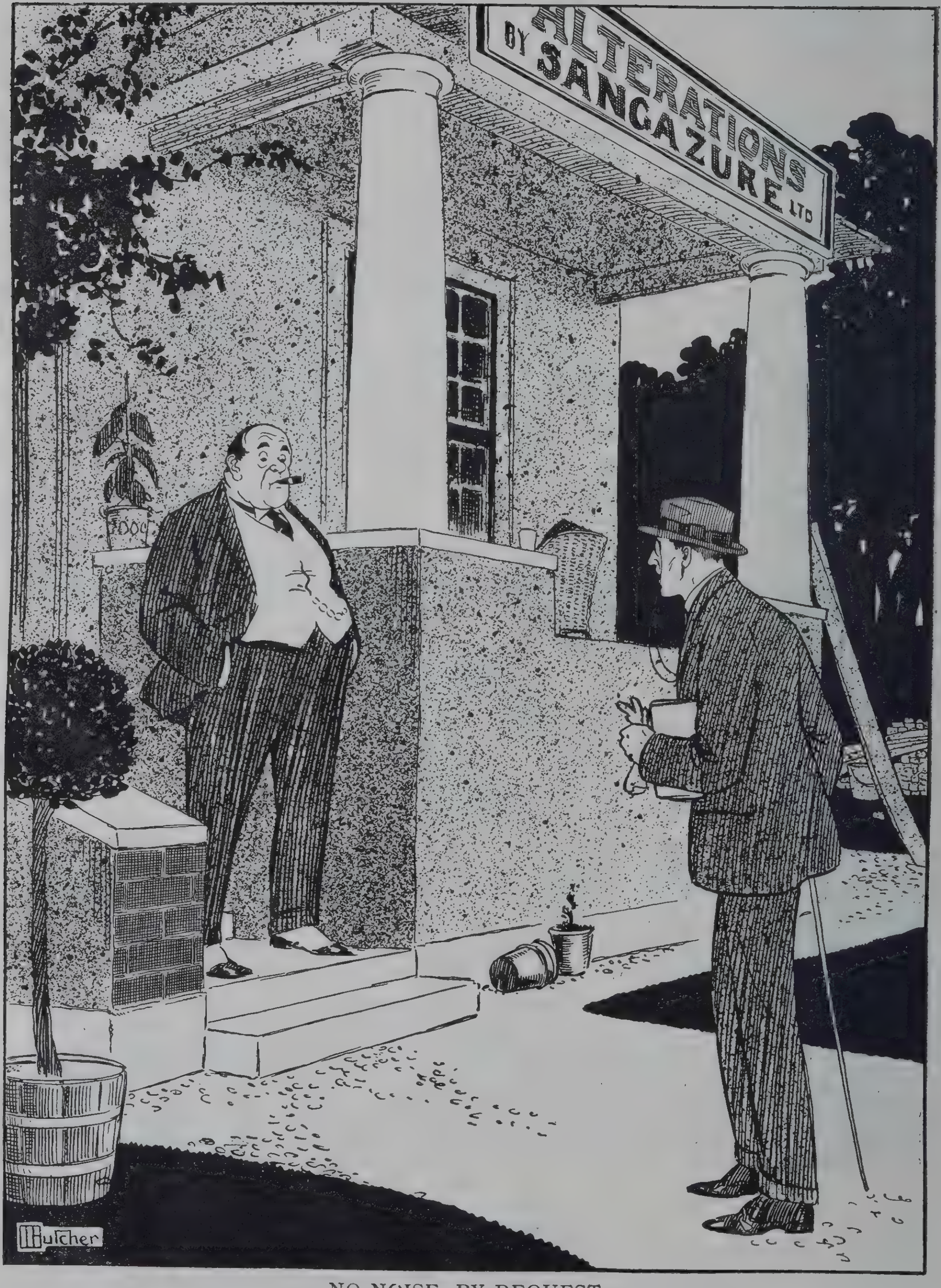
1½ per cent. upon the net amount of additions.

(*f*) Adjusting contract price consequent upon changes in cost of materials and checking and considering claims in respect thereof :

Where this work is done by the surveyor, a special fee is to be arranged, not to exceed ½ per cent. in respect of the first 100 houses upon the gross cost of the materials dealt with, and ¼ per cent. in respect of any number of houses beyond the first 100 upon the gross cost of the materials dealt with. In the event of any difference as to the amount to be charged for this work, the difference is to be determined by the Minister of Health whose decision shall be final.

(*g*) For pricing out Bills of Quantities, a special fee is to be arranged, and in the event of any difference as to the amount to be charged for this work, the difference is to be determined by the Minister of Health, whose decision shall be final.

The above scales of fees for Quantity Surveyors do not cover the making of calculations and preparation of statements for the purpose of issuing certificates, and are exclusive of all disbursements in respect of printing, lithography, and other out-of-pocket expenses.



NO NOISE, BY REQUEST.

"'Oo are you?"

"I'm the architect."

"Well, it's a good thing you ain't brought yer tools. My wife's got an 'eadache, and I can't 'ave you 'ammering about the place to-day."

[*Reproduced by kind permission of the Editor of* THE ROYAL MAGAZINE.

Continental Competitions.

LILLE BEAUTIFICATION SCHEME.

The Mayor and Corporation of Lille (France), invite schemes for extending and beautifying the city. The entrance fee is 300 francs, and a sum of 128,000 francs is available for premiums. Further information from the Mayor. Schemes have to be sent in by October next.

WAR MEMORIAL, LIÈGE.

The province and town of Liège are to erect a monument commemorating the defence of Belgium against the German invader. A sum of 1,000,000 francs has been subscribed for the project. The design for the memorial will be decided by a competition open to architects and sculptors of Belgian nationality or subjects of Allied Powers. Conditions of competition may be obtained from M. Leon Maréchal, Bureau des Beaux-Arts, Hotel de Ville, Liège, Belgium. A map of the selected site will be sent on receipt of postal order for 5 francs.

Current Competition Conditions.

The Society has filed for reference particulars of the following current Competitions :—

ASHTON-UNDER-LYME, BALLYMENA (Town Hall), *BATLEY (Lay-out), *BRADFORD-ON-AVON, *CHICHESTER, *CLEETHORPES, *LOCKERBIE, *GATLEY, *ARTHURET, *GRAVESEND, *GOOLE, GLOUCESTER, *HACKNEY, *WOKING and *HAWICK (War Memorials).

Those starred are still barred to members of the Society owing to unsatisfactory conditions.

Victory Scholarship Fund.

The amount subscribed to July 31st, 1920, is £360, of which £120 has been contributed by the following as a result of the President's appeal :—

MR. J. V. THOMAS, MR. F. I. FISHER, PROF. HENRY ADAMS, MR. WALTER DEWES, MR. PHILLIP DALES, MR. E. E. JENKIN, MR. H. E. TODD, MR. E. F. WHITE, MR. S. W. ACKROYD, MR. F. S. REYNOLDS, MR. J. C. ANDERSON, MR. E. C. P. MONSON, MR. M. V. TRELEAVEN, MR. H. P. MAXWELL, MR. HENRY DUNCH, MR. HENRY SMTH, MR. W. SIMPSON, MAJOR ROBINSON, MR. W. B. FLETCHER, REV. G. FRANK GEORGE, MR. W. K JONES, LADY RUTHEN, MR. F. T. PENTY, MR. T. C. EVANS., MR. L. SYLVESTER SULLIVAN and A. HAYNES JOHNSON.

The sums individually subscribed by the above donors range from ten shillings to £25, and a sum of, say, £1,700 is still required.

The lists of donors published from time to time include the names of persons other than Members, including ladies, and if Members, in addition to making their own contribution, will act in the capacity of "stewards," the amount required will easily be raised. One contributor has already collected £70 ; another has offered 30 guineas, provided that a sum of not less than 200 guineas is raised within a month; and a third has undertaken to add 5 per cent. to the total amount raised, with a limit to his percentage liability of 50 guineas.

It is hoped these generous offers will stimulate further donations so that the fund may benefit accordingly.

THE FINAL COMPETITION.

It has been found impracticable to complete the final competition within the time originally arranged owing to the necessity for certain amendments in the programme. The result will be made known at the end of the year.

Publicity.

SPORTS. A letter appeared in *The Builder* suggesting that in order to promote cameraderie between the Society and the R.I.B.A., the Society should challenge the R.I.B.A. in various branches of sport. This was followed by a letter from the President of the Society offering to "take on" the President of the R.I.B.A. in various sports—swimming, walking, rowing, cycling, etc.—and by another letter suggesting that the whole matter should be seriously taken up both on the original grounds of promoting good feeling between the two bodies and to benefit some charitable organisation.

NOTES FROM THE MINUTES. Extracts from Notes from the Minutes of a meeting of the Society notes regarding changes in the Society's Articles of Association, lists of competitions banned, and other news affecting the Society appeared in all the professional journals.

INTER-ALLIED HOUSING CONGRESS. Reports of the Garden Party given by H.M. Government to the foreign delegates attending the Inter-Allied Housing Congress, mentioning that the Society was represented by Sir Charles Ruthen, Vice-President, appeared in *The Times, Daily Telegraph, Morning Post, Daily News, Daily Express, Daily Chronicle, Evening News,* and other papers, and in the professional journals.

LUXURY BUILDING. A letter issued by the President of the Society to the daily press on the subject of Luxury Building appeared in the *Daily Telegraph, Morning Post, Liverpool Evening Express, East Anglian Daily Times, Cambridge Independent Press, Leicester Daily Post, Manchester Guardian, Leicester Daily Mercury, Daily News, Daily Express, Daily Chronicle, Evening News, Manchester Guardian, Edinburgh Evening Dispatch, East London Observer, Daily Herald, Yorkshire Post, Belfast Newsletter, Ways and Means,* and many other papers, the majority of which made the letter the subject of a leading article. It also appeared in the professional journals.

SIR CHARLES RUTHEN. As a result of the paper on Gas Heating, read before the Society at Olympia, a special interview with Sir Charles Ruthen, Vice-President, appeared in the *Carpenter and Builder*. A photograph of Sir Charles appeared as the frontispiece of the *Stone Trades' Journal* for June.

LABOUR NOTES. Under this heading an article appeared in the *Daily Mail*, dealing with the cordial relations existing between the Society and the Operatives in the Building Trade.

NATIONAL BUILDING CODE. A correspondent in the *Architect's Journal* expresses his agreement with the views of the President of the Society, "that a much more satisfactory document could have been formulated if the matter had been considered and arranged by a Committee representative of Architects, Quantity Surveyors and Builders."

A TOMBSTONE INSCRIPTION. A letter from the Secretary drawing attention to a quaint tombstone inscription at Folkestone which seemed to show that even in 1689 there was a Housing Problem, appeared in *The Builder*.

UNIFICATION. Mr. McArthur Butler's proposals for federation are commented on in a leader in the *Architects' Journal,* which takes the view that amalgamation is the more desirable course.

Correspondence.

The Editor,
Journal of The Society of Architects,
28, Bedford Square, W.C.1.

Salaries of Clerks of Works.

'Many Architects at the present time do not appear to realise the great increase in the cost of living and rise in operatives wages, for, in some instances, salaries are offered to Clerks of Works which are not much higher than the salaries paid prior to the war.

Appreciating the good understanding which has always existed between Architects and Clerks of Works, this Association appeals to Architects to assist in remedying this unsatisfactory state of affairs. With that object in view it has formulated the enclosed circular, copies of which have been sent to Local Authorities throughout the Kingdom with gratifying results.

Before the war, a Clerk of Works salary was usually twice that of a skilled operative, *i.e.*, when wages were 10½d. per hour for a 50 hour week, equal to £2 3s. 9d., the clerk of works received 4, 4½ and 5 guineas. Under the scale suggested in the circular, his pay would be as follows :—

Skilled operative's pay of 2s. 4d. per hour for a 44-hour week	£5	2	8	
66 2-3rd per cent. increase	3	8	5	
Total	£8	11	1	Say 8 Guineas.

It will be seen that, although operatives wages have increased about 150 per cent., Clerks of Works are asking for 66 2-3rd per cent. increase only.

The Association is desirous that this matter be brought to the notice of all members of The Society of Architects, and would be grateful if you would kindly include the gist of this letter and the circular in the next issue of your Journal.

C. W. DENNY,
Secretary,
Incorporated Clerks of Works Association.

Carpenters' Hall, E.C.
July 28th, 1920.

(In 1914 and again in 1919 the Council of the Society received a deputation from the C.W.A., in the first instance in regard to the wages offered them by public bodies, and later with reference to a minimum wage. In both cases the views of the C.W.A. commended themselves to the Council, who expressed their sympathy with the principle involved. The following is the circular referred to.—Ed.) :—

At the General Meeting of the Incorporated Clerks of Works Association of Great Britain, held at Carpenters' Hall on Monday, July 5th, 1920, the following resolution was unanimously carried :—

> " That this Association is of opinion that the minimum salary for Clerks of Works should be 66 2-3rd per cent. increase on the local rates for skilled operatives per week, and requests members to base the salary asked for on these minima when making application for appointments."

Architects' and Surveyors' Assistants' Professional Union.

The first meeting of the newly-formed Metropolitan Branch was held in the Council Chamber at Caxton Hall, Westminster, on June 24th, Capt. G. Ll. Evans, M.S.A., in the chair. The principal object of the meeting was to elect a Branch Committee and two Auditors, and the Chairman, in opening the meeting, briefly surveyed the past work of the Union and paid a tribute to the wonderful keenness and activity of the Scottish members—who had joined in such numbers and organised themselves to such an extent that it had been necessary to set up a Scottish Divisional Council to deal directly with the Central Executive Committee. At the first National Convention of Delegates, held at Sheffield last Whitsuntide, the minimum wage was discussed and decided upon, but he was not at liberty to make a public statement for the present. It had been decided to register the Union under the Trade Union Acts in order to gain legal status and as a protection to members. The Union now had offices at Sanctuary House, Westminster, with a certain amount of clerical assistance. The government of the Union, prior to the National Convention, had been in the hands of the London Executive Committee, which, having to act for the whole of the country, had of necessity rather neglected the social affairs of London itself. The Convention had now elected the Central Executive Committee, who would determine matters of policy, but it was up to the Branches to elect their own Committees and get to know one another and carry on the good work. Mr. Penty, Lic.R.I.B.A. (President of the Union), said that the reason why architects' and surveyors' assistants were not better paid was that hitherto the theory was that they were learners and improvers. The idea was that some day they would be in practice for themselves and the salary was understood as being nominal. The reason why assistants were becoming united in demanding to be properly paid was that in these days the prospects of ever being in practice was, for the average assistant entirely nil. They had to face the fact that most of them would be assistants all their lives, and they asked for that fact to be recognised, and to be paid on that basis. Some of the older men were realising that they had been fooled on a kind of " confidence trick " and were hoping to guide the younger men to a more prosperous time.

Domestic Smoke Damage and How to Avoid It.

A short Interim Report,* from the Ministry of Health Committee on Smoke and Noxious Vapours Abatement briefly describes the amount and character of domestic smoke. It appears that domestic soot contains a higher percentage of carbon and tar than factory soot, and is therefore more obnoxious and adhesive than the latter.

At least 6 per cent. of the coal ordinarily burnt in domestic grates escapes as soot, so that the amount of fuel wasted throughout the country every year would warm all London for at least six months. Instead of this it escapes into the air as soot, and befouls everything it touches and health, agriculture and building materials, are all most seriously affected.

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* Departmental Committee on Smoke and Noxious Vapours Abatement.—Interim Report. (Cmd. 755). Price 2d. net.

As there are 1,000,000 new houses to be built in the next few years, the Committee feel strongly that the new houses must not perpetuate the smoke evil and they have investigated various ways in which heat can be supplied to the new houses without burning raw coal in domestic grates.

The merits and demerits of coke, gas, electricity, central heating, and a central supply of hot water are discussed in the report, and the Committee are not wedded to any particular scheme of domestic heating as universally applicable, but they show that practicable hygienic and economical methods are available for supplying the requisite heat ; and they recommend that sanction to housing schemes submitted by Local Housing Authorities or Public Utility Societies should be conditional upon the provision of smokeless methods of heating as suggested in the "Conclusions" of the report, which are as follows :—

> We are satisfied that means which produce little or no smoke are available and practicable for cooking, heating water, and warming rooms.
>
> Certain general conclusions emerge from the data before us, which we may usefully summarise, as follows :—
>
> (1) The witnesses whom we have heard have almost without exception condemned either explicitly or implicitly the old-fashioned kitchen range and back-boiler as inefficient, wasteful of fuel and labour, and productive of smoke.
> Subject to the opinion previously expressed with regard to the future possibilities of electricity as a heating agent, we think that wherever a supply of gas is available, a gas cooker should be installed in lieu of a coal range.
>
> (2) The cheapest and most efficient method of providing a supply of hot water, where a central supply is not practicable, is by a coke-fired boiler.
>
> (3) A central hot water supply for detached houses, where practicable, is a desirable system, if it can be provided at a moderate cost. Practical experiments in this direction are urgently needed, and should be given every encouragement.
>
> (4) For tenement houses a central supply of hot water is quite practicable, and should be provided universally.
>
> (5) The system of installing separate central-heating plants in each house, heated by coke or anthracite, should be employed far more widely than is at present the case.
>
> (6) As far as practicable, gas fires or hot water radiators (or electric radiators, subject to the question of cost) should entirely supersede the old-fashioned open coal fire, adequate means for proper ventilation being provided.
>
> (7) We are aware that there is still a strong prejudice in many quarters in favour of an open coal fire, and we therefore limit our recommendation to this extent, namely, that in none of the houses built with the assistance of the Government subsidy should more than one, or, in exceptional circumstances, two coal grates be installed.
> Wherever coal ranges and coal grates are installed they should be of a type adapted to the use of coke as well as of coal. Adequate means of regulating the draught should in all cases be provided.

With regard to the question of domestic heating in general, we are struck by the absence of full and scientific knowledge. We think that the whole subject hygienic and scientific heating deserves a very much greater measure of public attention than it has hitherto received.—*Housing, July* 5th, 1920.

The Society of Architects' Lodge of Freemasons.

The Lodge meets on the second Wednesday in November (Installation), January, March, and May, at the Holborn Restaurant. The present Master is Major T. Stewart Inglis, D.S.O. (M), and the W.M. elect is Mr. William Hoe (M). The next Regular Meeting (Installation), will be held on Wednesday, November 10th, 1920, but it is probable that an Emergency Meeting will be held prior to that date. Visiting "Members" from other Lodges are always welcome and are invited to communicate with the Secretary of the Lodge, Mr. C. McArthur Butler, 28, Bedford Square, W.C. 1.

Absorption or Federation.

A Committee designed to bring about unification of the architectural profession has been formed at last, has held its first meeting, and has appointed a sub-committee, which was there and then instructed to draft and submit schemes on absorption and federation. With all our heart, we wish it success in what it has set out to do. Though the advantages of unification are great and obvious, they would hardly be reaped by this generation. Some sacrifice and unselfishness are needed in the interests of posterity, although some may be minded to ask, with the American humorist, "What has posterity done for us ?" At the first meeting the secretary of The Society of Architects spoke strongly against absorption, and thought that a federation of the various bodies would be a better solution, *i.e.*, the setting up of a "common council" by the R.I.B.A., the S.A., the A.A., and all other associated institutions. But that would mean an additional staff, additional office accommodation, and a great deal of overlapping in the work. Mr. McArthur Butler said that this "common council" would deal with such matters as registration, arbitration, and legal disputes. But what couldn't such a common council deal with ? And where would the duties of the individual institution end, and the duties of the common council begin ? As against absorption, it is natural that the younger society—The Society of Architects—should be jealous of its own individuality and not be content lightly to sink itself in the greater and longer-established R.I.B.A. However, of this we are sure : all members of the committee, no matter to which society they belong, have determined to set aside all personal interests, and will combine to serve the best interests of the architectural profession.—*The Architects' Journal.*

Concrete Buildings and Ventilation.

Mr. Edward L. Joseph, in the course of a paper read before the Concrete Institute says the modern trend towards the use of reinforced concrete in the construction of buildings for works, offices, and public institutions calls for very careful consideration as regards the efficient ventilation of these structures. The term "ventilation" will, in this paper, be taken to include heating and otherwise cleaning or purifying the air where the same is required.

The modern concrete building offers in its finished state an ideal structure as regards light, cleanliness and strength and an efficient system of ventilation, especially in a works where the nature of the trade carried on tends to vitiate the atmosphere and will have a marked effect upon the vitality of the occupants ; and the comparatively small initial cost of a proper ventilating plant is altogether out of proportion to the immediate and lasting beneficial effects that such an installation would have.

Thanks to the lack of complication, from a ventilating point of view, of a concrete building, the ventilating engineer can have a comparatively straightforward task in the design of a really efficient system, and it is with details of such schemes that the author proposes to deal. The simplicity of the scheme and the consequent ease of carrying it out will be much accentuated if the work of the ventilating engineer be carried out simultaneously with the erection of the building.

Concrete buildings offer many advantages over other buildings to the heating and ventilating engineer, principal among them being low heat losses, and easy and excellent erection of ductwork.

It is a fact that the coefficient of heat transmission expressed in British thermal units per degree Fahr. difference in temperature between the interior and exterior temperatures is very favourable for concrete buildings. The advantage of this fact shows itself in two ways. Firstly, to obtain a constant working temperature such as is usually required in a factory, *i.e.*, 60 degrees Fahr., the heat lost by radiation being reasonable, the boiler capacity can also be normal in keeping therewith, and the fuel consumption for heating purposes can be reduced to an economical basis. Secondly, and no less important, the initial outlay for the heating and ventilating plant can be kept within reasonable limits and a perfectly efficient and modern plant installed with a minimum of expense.

The interior of the building also will not be affected so rapidly by sudden changes of external conditions, and with reasonable manipulation of the plant the same average conditions may be maintained all the year round. This desirable condition is the direct result of the superior quality of a concrete building in regard to what we may term its " tightness " or impermeability.

The erection of plant in a concrete building offers excellent opportunities for careful consideration by the designer. It may be quite possible after a structure is completed for much unnecessary time and money to be spent in making suitable provision for the hanging of electric mains, steam or hot-water pipes, and the distributing ductwork of the air-purifying installation. If, however, this point be carefully considered whilst the building is being designed, both time and money will be saved, in addition to preventing the objectionable effects from surface disintegration by having to cut into the finished concrete.

Another advantage offered by a concrete building is in the erection of the main and distributing ducts. These can most satisfactorily be formed in the concrete itself, thus saving both time and money and obviating the necessity for ductwork appearing on the surface or having to be cased round after erection. The ducts so formed are perfectly satisfactory. The correct coefficient for the skin friction of concrete must be borne in mind when designing the ducts.

From the foregoing remarks the need for, and advantages of a correct system of ventilation in, and properly applied to concrete buildings will be appreciated.

The advantages that the modern concrete buildings offer as regards light, cleanliness, comparative ease of erection and the general " clean " design of the building, make the task of the ventilating engineer a very pleasant one, and with due consideration given to the very important matter of complete co-operation between the designer of the building and the ventilating engineer, an installation can be devised and installed that will reflect credit upon all parties concerned and render a healthy and efficient service to the occupants.

Transfers to the Fellowship Class.

Members of the Society elected previously to May 1st, 1920, who are over thirty years of age and have been engaged as Principals in the practice of Architecture for at least ten consecutive years, and are still so practising, or who are Fellows of the R.I.B.A., are eligible to make an application for transfer to the Fellowship class. Members elected since May 1st, 1920, have a similar privilege, but cannot exercise it for twelve months from the date of their election.

Candidates may make application on the prescribed form to be obtained from the Secretary, and must submit such further evidence of qualifications by way of drawings and photographs and other testimonies of professional standing and ability as the Council may in each case require.

The Annual Subscription of Fellows is £4 4s., and a remittance for this amount, returnable in the event of non-election must accompany the application. Members of the Society on election as Fellows do not pay the Entrance Fee of that class.

The first Annual Subscription of all Fellows elected before October 31st, 1920, will be credited to them to October 31st, 1921, so that Members transferred before the first-named date will not pay any increased subscription for the remainder of the present financial year, which is covered by their current membership subscription. The latter, if not already paid, must be discharged before an application for transfer can be considered by the Council. The Membership Committee will not meet during August or September and any applications deposited in the meantime will be dealt with when the Committee reassembles.

THE MEMBERSHIP CLASS.

Members who are not at present eligible to make an application for transfer to Fellowship may do so when they acquire the requisite qualifications.

The Annual Subscription of Members is now £3 3s., as from November 1st, 1920.

New Membership Certificates.

The new Certificates for Fellowship, Membership and Licentiateship of the Society have been approved by the Council, and will be issued to all Members (in any class), elected on and after July 15th, 1920. Other members wishing to exchange their Membership Certificates for new ones should return the originals to the Secretary with a remittance of five shillings, when a new Certificate bearing the original date of election will be issued in exchange in due course.

Members who prefer to retain their present Certificates are under no obligations to change them.

Architectural Scholarship.

The Architectural Scholarship, 1920, of the value of £10, is offered for Measured Drawings, and the Competition is confined to Licentiates and Students of the Society, who have paid their fees for the current year. The assessors are Messrs. Sir Charles T. Ruthen, O.B.E., Percy B. Tubbs and Professor Adams.

Candidates are required to submit at least three and not more than four sheets of Measured Drawings and Details, of some building of historic interest.

The Drawings are to be prepared between November 1st, 1919 and September 30th, 1920, and must be endorsed, "The Society of Architects' Architectural Scholarship, 1920," and delivered not later than 6 p.m., on October 1st, 1920, at the Society's offices, 28, Bedford Square, W.C.1.

The Scholarship will be disbursed by the Council on behalf of the holder, subject to their approval of the manner in which the Candidate proposes to utilise the Scholarship, or alternatively to the Candidate agreeing to such scheme as the Council may decide upon.

Should the scheme not call for the payment of so much as Ten Pounds (£10) the holder may receive the value of the balance in books or instruments.

The successful Candidate may be required, before the award is confirmed, to produce to the Council evidence as to age.

Students' Competitions.

GENERAL REGULATIONS.

(1) Drawings must be executed on white paper, imperial size and mounted on strainers or boards, and bear no motto or other mark of identification.

(2) Essays must be written (preferably typewritten), on foolscap single sheets one side only, and pinned at top left hand corner, and bear no mark of identification.

(3) Drawings and Essays must have attached to them a plain sealed envelope containing a declaration signed by the Candidate that the work is his unaided effort, and has been executed within the time allotted.

(4) Drawings and Essays must be delivered carriage paid at the Society's offices, 28, Bedford Square, W.C.1., not later than 6 p.m., on the day on which the Competition closes, together with any original sketches and notes.

(5) Drawings and Essays will be numbered as received and a corresponding number will be placed upon the Candidates' sealed envelope, which will not be opened until the Competition has been decided.

(6) The Society will not be responsible for the loss of or damage to any drawing or document submitted by Competitors, though every reasonable care will be taken of them.

(7) The Council reserves the right of exhibiting and/or reproducing any of the drawings or essays, and their decision on any point arising out of the Competitions is final and binding on the Competitors.

(8) A Candidate who does not adhere to the conditions and regulations in every particular will be disqualified.

(9) A Scholarship or Studentship may only be held once by the same person.

Quarterly Competitions.

These Competitions are open to Licentiates and Students of the Society who are under 23 years of age on the day the respective entries close, viz., January 31st, April 30th, July 31st and October 31st ; and who have paid their subscriptions for the current year. Ex-Service Students may, if necessary, deduct the time spent in H.M. Forces, between 1914 and 1919 from their present age.

The First Prize in each quarterly competition is of the value of £3 3s., with a Second Prize of the value of £2 2s., if more than ten Students compete. The Council reserves the right to vary or withhold the award, which will only be made if the work is, in their opinion, of sufficient merit. Successful competitors may be required before the award is confirmed to produce evidence to the Council as to age.

Quarter Ending, October 31st, 1920, Measured Drawings, consisting of one sheet to one-eighth scale, one sheet to half-inch scale, and one sheet of enlarged details. They must be delivered carriage paid, at the Society's offices, not later than 6 p.m. on Monday, November 1st, together with the original sketches and notes.

Assessors : MESSRS. PERCY B. TUBBS, L. SYLVESTER SULLIVAN, AND HARRY GILL.

Notes from the Minutes.

Victory Scholarship. It was reported that further contributions had been received as a result of the President's appeal, and the Members of the Council present individually agreed to endeavour to raise a definite sum. One contributor had offered an additional Thirty Guineas provided that a sum not less than £200 is raised within a month, and another had offered to add 5 per cent. to the amount raised every year for three years up to a maximum per centage of £50. The hope was expressed that these special offers would stimulate others and promote a friendly rivalry in completing the fund.

It was further reported that owing to circumstances arising out of the final competition in which the Jury were concerned, and over which the Council had no control, a meeting of the interested parties had been held and recommendations made that the time for the completion of the final competition be extended. Under these circumstances the decision of the Jury could not be received until the end of the year. The Council adopted the recommendations.

Unity and Registration. It was reported that the first meeting of the Unification Committee was to be held on July 20th.

Housing Fees. It was reported that with the exception of one item, an agreement had been come to by the representatives of architectural bodies with the Ministry of Health in regard to the issue of a revised scale of charges for State aided Housing Schemes. The final adjustment of the item still under consideration had been left to Sir Charles Ruthen, a Vice-President of the Society. The Council agreed to leave the matter in his hands.

Premises. It was reported that the decorative repairs to the interior of the premises were well in hand together with certain minor alterations, all of which, it was hoped, would be completed before the beginning of the next Session.

House List, 1921. The Council's list of nominations were completed and will be published in due course for the information of Members, who will have an opportunity of making further nominations before the final list is issued for ballot by the Members in October.

Research Committee. A communication was received from the Committee of the Privy Council for Scientific and Industrial Research stating that a Building (Material and Construction) Research Board had been established, and asking that the Director of Building Research might have access to the Society's Library.

It was agreed to give the Director every facility for the use of the Library and to apply for representation of the Society on the Research Board.

Points of Practice. The report of the Sub-Committee on cases for consideration showing that the Committee had advised a number of Members on questions relating principally to Housing Fees, professional etiquette and other points of practice.

Competitions. The report of this Committee showed that in one case as a result of the promoters approaching the Society at an early stage a Committee of Assessors nominated by the Society had been accepted by the promoters for the purpose of acting as Assessors and drawing up of the conditions.

The list of Competitions barred by the Society was submitted and approved.

National Building Code. The Society's representatives reported on their negotiations with the National Federation of Building Trades' Employers, intimating that they had urged the desirability of dealing with the matter by means of joint conferences of all the professional bodies concerned, rather than by separate meetings with the individual organisations. The Council agreed with the action of the Society's representative.

Empire Timber Exhibition. It was reported that the Society was represented on the Advisory Committee by Sir Charles Ruthen, Vice-President, and that invitations had been extended individually to Members of the Society to attend. The Society had paid an official visit to the Exhibition on July 13th, and on the following day the President, Mr. Sadgrove, was a guest at a luncheon given by the Agent-General of Western Australia.

London Master Builders' Association. A communication from this Association asking the Society to recommend Members to invite tenders from Federated Builders only, was referred to the Practice Committee for their consideration and report.

War Memorial. A design by Mr. H. Wenyon (Member) for the Society's War Memorial Tablet was approved, and arrangements made for it to be executed and fixed in the Entrance Hall of the Society's premises.

Continental Notes.

By W. E. WOOLLEY, M.S.A.,

Membre Correspondant de la Société Centrale d'Architecture de Belgique, etc.

BELGIUM.

A Consultative Committee of Architecture of the Ministry of the Interior, Belgium, has been formed at Brussels. M. Brunfaut, President of the Royal Academy of Belgium, and member of the Royal Commission of Monuments and Sites has been appointed President of same.

Belgian architects are to erect a memorial to the memory of M.M. Baucq and Backelmans, Belgian architects, assassinated by the Germans during the occupation. Baucq was the architect associated with Nurse Edith Cavell.

Dinant.—M. Paul Jasper, architect, of Liége, has been appointed to take charge of the works of reconstruction of Dinant.

A National Society of "Habitations et Logements à bon Marché" has been sanctioned by Belgian law. One of the objects is to help in creating local and regional societies for the erection of cheap dwellings, and to make advances of funds to these societies.

FRANCE.

Rheims.—The Municipal Council of Rheims has approved the new plan for the rebuilding, etc., of the town, prepared by the American architect, Ford. We are informed that workmen from all parts of the globe are there—Belgians, Portuguese, Italians, Spaniards, Greeks, Luxemburgers, Swiss, Montenegrins, Poles, Russians, English, Tunisians, Serbs, Moroccans, Americans, Germans, Dutch, Turks, Yougo-Slavs, Argentins, Austrians, Armenians, Brazilians, Roumanians, Danes, Chinese, Bulgarians, and others.

Mainly About Members.

A simple wayside cross has been erected at Leckhampton as a war memorial from the designs and under the supervision of Leonard Barnard, Esq., F.R.I.B.A., of Cheltenham. The memorial was worked and fixed complete by the Leckhampton Quarries Co., Ltd., in their celebrated Cotswold Dale stone. It was recently unveiled by Sir Aston Lister, M.P.

The partnership which has subsisted between Messrs. Peacock & Bewlay, F.R.I.B.A., and Mr. S. N. Cooke, F.R.I.B.A., during the period of the war, has been dissolved. Messrs. Peacock & Bewlay will continue to practise as before at 83, Colmore Row, Birmingham, and Mr. Cooke, for the present, will also practise at the same address.

MAJOR HARRY BARNES, M.P. (M.) has been elected a member of the R.I.B.A. Council, and Mr. T. TALIESIN REES (F.), of Liverpool, represents that body. Mr. E. W. HARVEY PIPER (Hon. M.) has been elected an Hon. A.R.I.B.A.

The Children's Summer Home, at Llangewith, of which SIR CHARLES RUTHEN is the architect, is now occupied. An important consideration in the planning was the reduction of danger to small children to the minimum. Hence the elimination of steps; the arrangement by which, opening two doors, the staff could see from end to end of the building; the additional exits from the dormitories; the fireproof inside finish; the central heating. Dormitories and central hall were unceiled, and perfect ventilation and circulation of fresh air was assured. The building is on a stone foundation, with a concrete layer over the whole site. The floors are wood block, and upon the stone foundations is erected a wooden framework, coated with a solution to prevent dry rot or attack by vermin, and covered with Bishopric Board, consisting of a bitumen layer on which is fixed dovetailed laths. On this three coats of Portland cement rough-cast are applied. The result is a structure, apparently of the ordinary type, the outside skin of which is impervious to the weather and fire and vermin-proof. The inside skin is fibre-asbestos, not only very warm in winter and cool in summer, but, again, absolutely fireproof. The whole of the internal arrangements have been made in special relation to economy of management. The dark-stained wooden strips on the internal asbestos sheeting give a panel effect, and the warm colour of the distemper on the asbestos and the dark-stained roof timbers complete a pleasing colour scheme. The flues, etc., are in brickwork, so that no heat can possibly reach the woodwork.

Mr. A. Stanley Cox, of Reading, has perfected a system of concrete construction for cottages, which has been approved by the Ministry of Health for State-aided Housing Schemes. A special feature is the semi-circular roof, for which a patent has been applied. The construction of the cottage is claimed to be simple, economical, and suitable for mass production.

Twenty-seven sets of designs were submitted in competition for a Secondary School, Houghton-le-Spring. The first award goes to Mr. R. S. PHILLIPS and Mr. R. V. Taylor, of Gloucester, and commendation is given to the design submitted by Mr. F. Q. FARMER, of Stalybridge.

Messrs. Trehearne & Norman are taking a large share in the architectural work in Kingsway. In addition to over a dozen buildings erected from their designs in Kingsway prior to the war, they have in hand Prince's House, for H.M. Office of Works; Ingersoll House, leased to the Ingersoll Watch Co.; the block at the corner of Kingsway and Aldwych for the Shell Marketing Co. and the British-

Thompson-Houston Co.; and African House, for the African and Eastern Trading Co., by far the largest office building in Kingsway. In Aldwych, Connaught House, Astor House, and Columbia House are being erected from their designs, and also adjoining the latter, the important extension to the London University—the School of Economics, of which the foundation stone was recently laid by the King.

The development of the Wembley Hill Garden Suburb Co. and the Wembley Hill Cottage Estates, Ltd., commenced in 1914, and the erection of houses continued until brought to a compulsory termination in 1916, at which time thirty-eight cottages had been built at the South-east end of the estate, and eighty-five of the larger type at the other end under the auspices of the Garden Suburb Co. The builders on both estates are now continuing the work, which was resumed about a year ago. Mr. Geo. E. Clare is the estates architect, who prepared the general laying-out scheme, and who has designed the houses already built, and also those now in course of erection.

Mr. E. J. SADGROVE, President of The Society of Architects, has been nominated by the Committee of Management of the Architects' and Surveyors' Approved Society (National Health Insurance) as a Trustee, in the place of Mr. Ernest Newton, A.R.A., P.P.R.I.B.A., who has retired. The nomination is subject to confirmation at the Annual Meeting.

A number of Members of the Council of the Society were present at the R.I.B.A. Garden Party at the Zoological Gardens on July 6th.

The Clifton Park race-stand, which forms the subject of an article in the *Architects' Journal*, is constructed entirely of reinforced concrete, and has accommodation for about 20,000 people. The total length of the stand is about 466 ft, and the depth about 50 ft. 9 in., the columns being spaced across the depth at intervals of about 12 ft. 6 in., giving three intermediate rows of supports. About 96 ft. in length is given up for the accommodation of members, with a bar and smoking-room on the ground floor, and a drawing-room at the back of the second floor. Luncheon-room accommodation is also provided on the ground floor. Another 83 ft. in length is appropriated to Tattersalls, with a large luncheon-room on the ground floor, the remainder of the space being given up to ordinary spectators, with a large luncheon-room and bars on the ground floor. The architect is Mr. Arthur Hindle, of Blackpool.

Mr. W. C. JACKSON, architect, Chesterfield, has prepared plans for a new cinema to be erected in Knifesmith Gate, Chesterfield. By an arrangement with the Corporation, whereby the company undertake to build fifteen dwelling-houses, it will be possible to begin the erection within the next few weeks. The plans provide for nine double-fronted shops and an up-to-date cinema, to accommodate 2,000, with café, billiard-room, ballroom, etc.

A project for new facade to Albyn Place, Aberdeen, designed by Mr. Joseph Addison, and illustrated in *The Architect*, was lodged for the Diploma in Architecture, Aberdeen, in June, 1919, and was awarded the Byrne Scholarship (value £60), also design for a civic memorial. The conditions called for a domed memorial, to measure 60 ft. either way on plan, and to be on a site of four acres. The author endeavoured, having such a limited area, to get the required dignity to the memorial by accentuating the height, and settling the memorial upon a podium, with a crypto porticus on the axis of the Water Bridge. The drawings were awarded the British Institution Scholarship in Architecture last year (value £50 a year for two years). Mr. Addison has recently been awarded the Travelling Scholarship and £150 granted by the Aberdeen School of Architecture.

Form of Contract.

The Society's form of Building Contract has been reprinted with slight alterations, and can now be obtained from the offices of the Society, 28, Bedford Square, W.C.1, at a charge of one shilling (post free 1s. 2d.).

Special General Meeting.

A Special General Meeting of The Society of Architects will be held at 28, Bedford Square, W.C.1, on Thursday, October 14th, 1920, at 6 p.m. to receive the Scrutineers' report on the ballot for the election of officers and council, and for other business.

The Loan Library.

The Library will be closed during August for Stocktaking, and in the meantime no books will be issued on loan. Members who have not returned borrowed books are asked to do so at an early date.

Registration and Amalgamation of Surveyors.

It is stated in a circular issued by the Surveyors' Institution that it is proposed that the principle of registration for the Surveyors' profession should be approved, and that the possibility of attaining this by conjoint action with kindred professional bodies should be considered.

An amalgamation between the Institution and the Quantity Surveyors' Association, which has been incorporated since October, 1904, has been under consideration. In the opinion of the Council the proposal presents certain definite advantages, both to members practising in quantities and to the profession, in that a single body capable of speaking with authority on all questions connected with that particular branch of the profession would be substituted for the dual authority which now exists. The Quantity Surveyors' Association have for many years held examinations, somewhat similar to those of the Institution, for those desiring to qualify for membership.

The Council strongly recommend that members should support the proposed amalgamation. It is suggested that the main lines upon which the fusion should be effected should be :—

(*a*) Full members of the Q.S.A. to become Fellows of the Institution provided that they fulfil the requirements of the Institution as to age qualification and responsibility.

Other members of the Q.S.A. to become Professional Associates provided that they fulfil the requirements of the Institution as to age, and practical knowledge of their profession.

(*b*) A Quantity Surveyor's Committee, elected by members practising in quantities, to be established for the purpose of dealing, under the Council, with all matters connected with their branch of the profession.

(*c*) Members practising in quantities to have not less than two representatives on the Council of the Institution. This could be arranged under paragraph 2 (1) of the proposals for the election of the Council dealing with sectional representation.

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The Society is not, as a body, responsible for the opinions expressed by individual authors and speakers.

Concrete and Cement Fineness.*

Probably no other material used in constructional work has been subjected to such an enormous amount of scientific investigation as has concrete, both as regards matrix and aggregate, and in a building era that has been termed "the concrete age," the value of such research work cannot be over-estimated. A series of interesting experiments relating to the effect of the fineness of the cement upon the various properties of the concrete of which it forms a constituent part has recently been carried out at a famous American research laboratory. The tests embraced a very extensive range of fineness giving residues varying from 2 to 43 per cent. on the American standard No. 200 sieve. Fifty or so separate samples of cement from reputable commercial mills were used, and in the majority of cases the aggregate of the concrete was of sand and pebbles. In making the tests of the cement the following points were particularly watched: The strength of the resultant concrete, the quality of the concrete using various brands of cements, the quantity of cement necessary, consistency of the concrete, the effect of various aggregates as regards type, size, and grading, the age of the concrete, its expansion and contraction and workability relative to the fineness of grinding of the cement used.

The outstanding conclusions arrived at by the research committee which have been published in a series of technical papers, may be briefly summarised. It has been ascertained that as a general rule with any particular lot of cement and for all mixes, consistencies, variations of aggregates, and ages of concrete, the strength of the concrete increases with the fineness of the cement, but, at the same time, if different cements are compared, there is not necessarily any relation between the strength of the concrete and the fineness of the cement. The experiments proved that with residues lower than about 10 per cent. cements were apt to produce erratic strength results, but when the residue exceeded 10 per cent. the strength of the concrete varied inversely as the residue on the standard sieve. The ratio of strength to fineness increased very much more slowly with an excessively wet mixture of concrete, but with normal consistencies the effect of the fineness of the cement was not to any appreciable extent governed by the consistency of the mixture.

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* *From the " Daily Telegraph " Engineering Notes.*

Comparative Results.

In lean mixtures a fine cement is a more important factor in determining the strength than is the case with rich mixtures, and fine grinding has more effect in increasing the strength of the concrete at the age of seven days than at three or four months to one year. Normal mixtures of concrete under test gain an increased strength of about 2.5 per cent. for 1 per cent. reduction of cement residue on the sieve at seven days old, while the corresponding additional strengths at twenty-eight days, three months, and one year were 2 per cent., 1.7 per cent., and 1.4 per cent. respectively.

Finely-ground cement was found to set in a much shorter time than coarser material, and in several cases the time of the initial setting tested under the Vicat needle was reduced to five minutes. The hardening of the concrete in which a fine cement is employed is considerably hastened. Various experiments, in which 94 lb. per cubic foot was taken as the uniform basis for proportioning the cements, showed that the actual volume of cement in a batch of the same mix varied roughly 35 per cent., and that the unit weight of cement decreases with fineness. For the general range of fineness the weight may be considered to be reduced about .75 lb. per cubic foot for each 1 per cent. reduction in the residue on the sieve. Generally speaking, the consistency increases with fineness of grinding, but as regards the consistency of richer mixtures for ordinary constructional work the fineness of the cement produces no great effect upon the workability of the concrete. The yield or density of the concrete is also not to any extent influenced by the employment of a finely-ground cement, which, again, has little or no effect upon the strength of concrete relative to the type of aggregate. Experiments have shown that concrete of all mixes and consistencies expands in damp sand or water storage and contracts in air, lean mixtures being slightly less affected than richer constituencies. The change in the dimensions of concrete specimens under test, due to storage in air or water, is apparently quite independent of the fineness of the cement and the consistency of the concrete.

A very intimate relationship undoubtedly exists between the strength of the concrete and the proportion of water in the mixture. So long as the concrete is plastic and the aggregate is not unduly coarse, the strength increases with the lowering of the water ratio, and it has been determined that, with an increase in the quantity of cement in a given mixture, concrete of equal workability is obtained with a lower ratio of water and a consequent higher strength.

Increase in Membership Fees.

Since the Society decided that it was essential to its work that the Membership Fees should be increased, the R.I.B.A. have taken a similar step, and the Surveyors' Institution have the matter under consideration.

* Progress of the Atelier Movement in Great Britain.

A fresh impetus is to be given to architectural expression in this country by the formation of two new Ateliers on the lines of the French Ecole des Beaux-Arts.

One of these is to be organised by University College, London, the other by the Architectural Association.

This is one of the most important national decisions that has been made, and one which will have far-reaching effects. The decision of the authorities of University College is an admission of the fact which architects and builders have been urging for many years, *i.e.*, that the training of those who have it in their power to beautify our surroundings, to build sensible and healthy homes for the people, is as important a matter as the training of young men for all the other vital professions.

NEW ERA IN ARCHITECTURE.

It is also the sign of the dawn of a new era, when all who are linked together in the work of building, whether it be the architect, the builder, or the labourer, will work together with one object in view—the good of all men. For that, in brief, is the trend of the teaching which is now to be the chief method of this country. Although the Royal Academy confines its teaching to the work of the painter and sculptor, and is not at present to form an Atelier, the work of the three now established in London is to receive the attention and the aid of that august body.

In course of time the competitions will probably be judged by the President of the Academy and other Academicians along with the patrons and sous-patrons of the Ateliers. Nor is this all, for the work of the Ateliers now being established can only lead to one thing. When it is recognised that these schools are a national asset tending towards the erection of large and beautiful masses of architecture, proper homes for the people, and a broadening of the national mind through artistic surroundings, State aid for the movement is bound to follow.

The decision of University College may be looked upon as a triumph for the earlier organisation in London, which, inaugurated by and presided over by Mr. Arthur Davis, F.R.I.B.A., has done the work of preparing the soil for the splendid results we are now likely to see around us.

Mr. Davis, a young man with a splendid record behind him, and a large outlook on architectural possibility, is the head or patron of the parent Atelier of this country* which is linked up in some measure with the romance that always hangs like a halo around pioneer work of any kind.

HARD SCHOOL.

He and his colleagues have secured for the builder of this country the recognition of a movement which briefly may thus be defined: " A movement artistic yet democratic, autocratic yet willing to learn from all and sundry." Monastic in its methods—for the school in which the young architect is trained is a hard one—it is thoughtful and embracing with an illimitable outlook on the future and the certainty of the realisation of its ideals.

Mr. Davis, who talked enthusiastically to *The British Builder* about the method of training and the outlook of the Atelier, does not believe in the old conception of the architect—that omnipotent autocrat who often saw no farther than a facade or a big room for the managing director.

" The architect of the future," he said to me, " must be encouraged to plan whole masses of buildings on large sites. This was hopeless before, but the new ideas of construction demand it.

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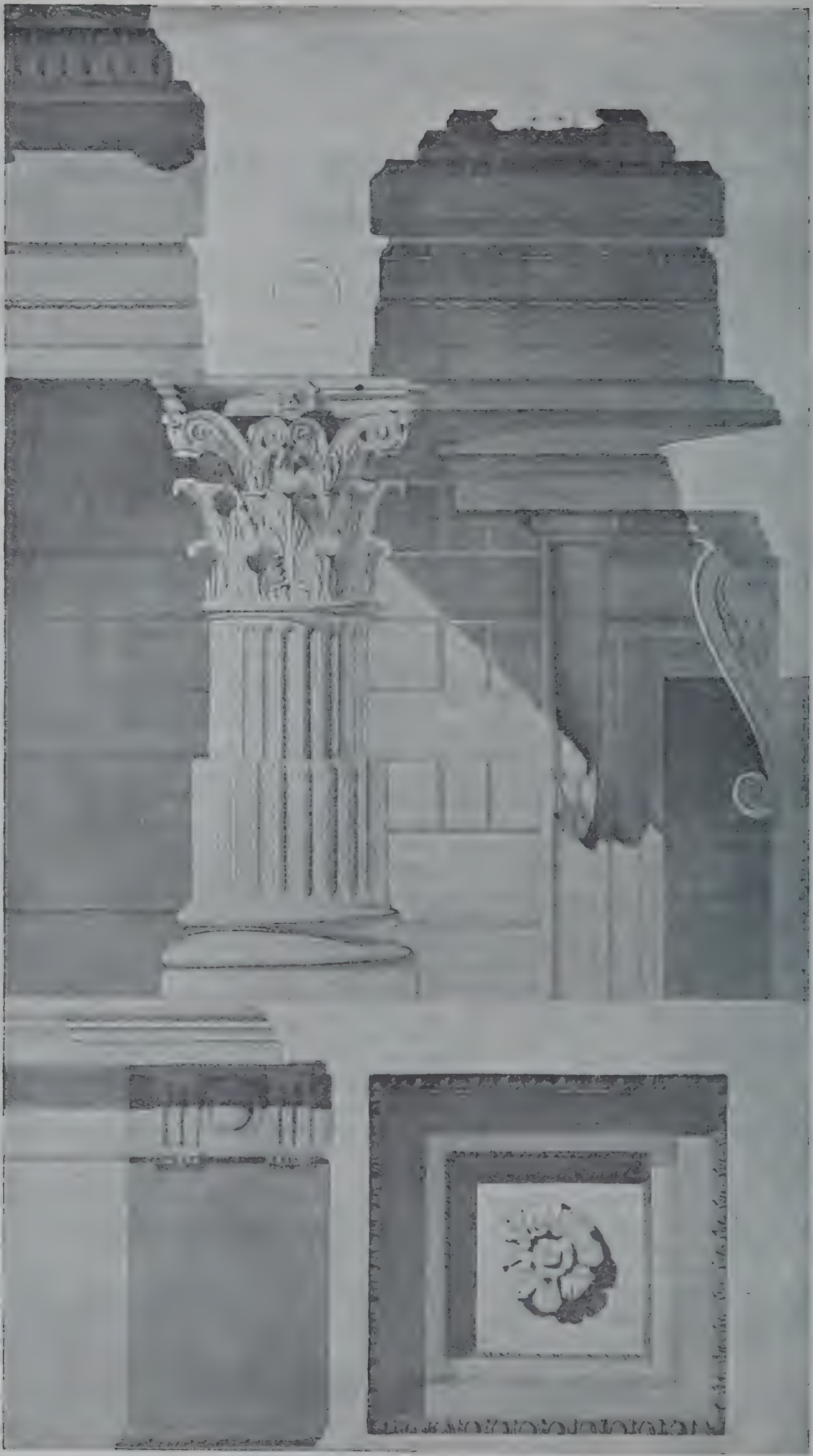
* The First Atelier of Architecture at 28, Bedford Square, W.C.



Analytical Detail. Arthur Davis.

(*From The Society of Architects Exhibition of Beaux Arts drawings*).

BIG IDEAS WANTED.

"They may also be made to realise that architecture is not produced solely by one man. There are the assistants, the contractor, the sub-contractor, each of whom can aid him in his work. The students of to-day are taught not to walk off with their design and hide in a corner, but to consult the patron and their fellow-students. This is the first step on the ladder which in the future will lead to co-operation and co-partnership in building."

The motive power of this new world, emerging from the welter and destruction of Armageddon, is human voltage. Mr. Davis went on to tell me, more by inference than actual words and phrases, this :—

"The architect of to-day must be an artist. He must be an encyclopædia, or must know where to go for information, as Bacon taught us to do. He must be willing to work hand in hand with his fellow-craftsmen to give expression or absorb the use of ideas given him. Above all, he must be a man of big ideas, so that architecture shall make such strides as it has never made before in this country."

The new movement, when Mr. Davis brought it over to England some six years ago, was scoffed at even in high quarters. Most new movements are looked upon as revolutionary, their adherents as iconoclasts or cranks. At first, the pioneers had to face the stiff opposition of those who foresaw in its inception a movement to establish French architecture in our midst. It was nothing of the kind, but merely the using the methods of teaching and the organisation of the Ecole des Beaux-Arts.

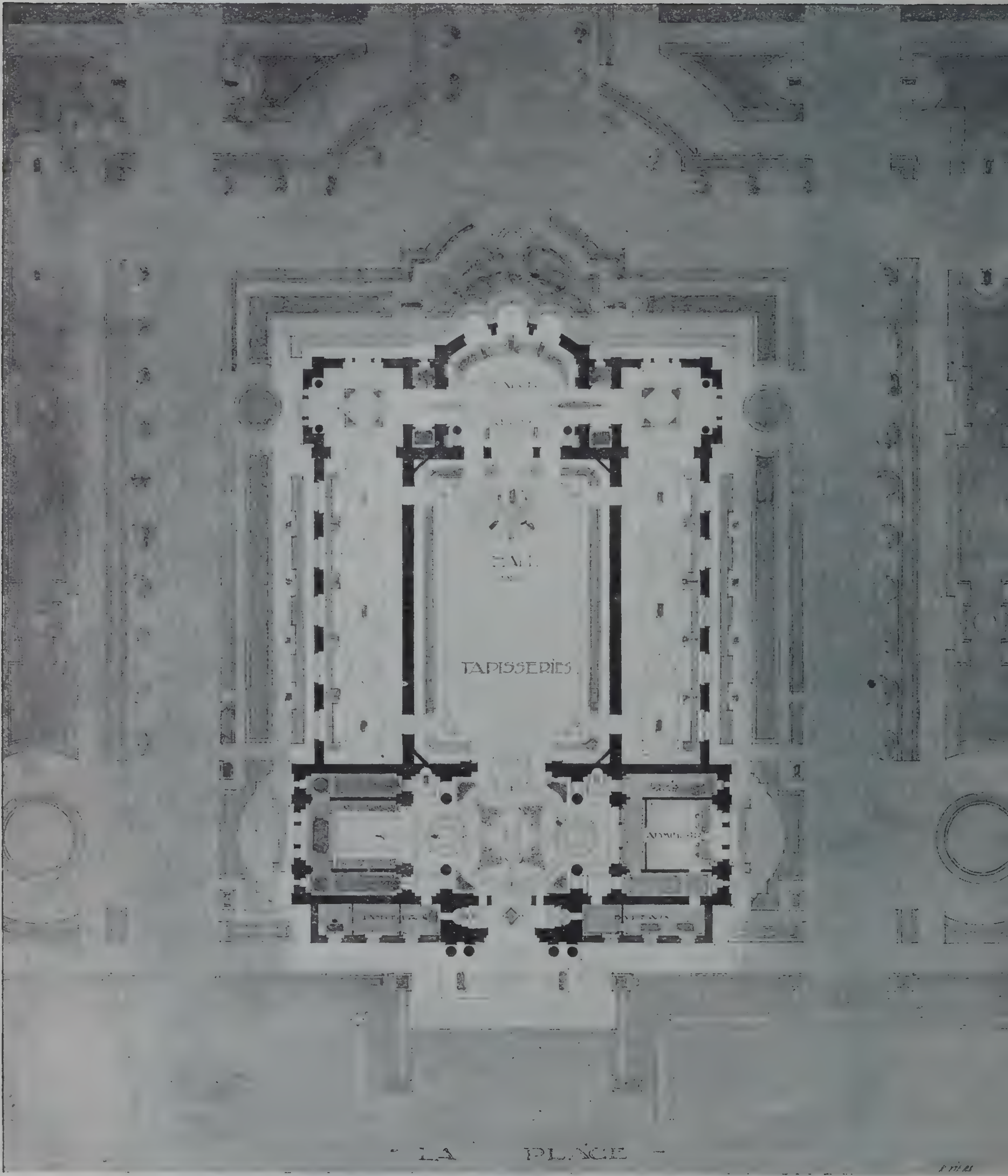
"This school," says Mr. Davis, "has produced architects of great merit and others whose examples we can and should avoid. The prevailing fashion of each period in France has left its mark upon the art produced. If the results obtained by the students of this school are examined such a diversity of styles and methods appear that it cannot be asserted that it has directed its students in any particular direction. In fact, the Beaux-Arts seem to reflect instead of direct the artistic tendencies of its time.

"In France, architecture is considered one of the fine arts. This statement may seem obvious, but in this country we see so many architects claiming to be first of all professional or building men and considering the design of their building of secondary importance to professional and constructional considerations, so it cannot be too often repeated that the architect should be as he was in the olden days, primarily an artist and a creator. This fact is frequently lost sight of in this country, where the stress of competition and the necessity of making a livelihood has prevented the architect from receiving the same consideration and belonging to the same social status as men of other professions.

"This fact has also given birth to an idea among the public that an architect is a gentleman something between a lawyer and a surveyor who spends his life in dealing with matters concerning party walls, ancient lights, leases and constructional problems, the question of the design and beauty of the building being quite secondary and unimportant.

HUMBLE BEGINNINGS.

"Now, in France the artist, whether he be painter, sculptor, architect, or musician, is placed upon a very different footing, and the architectural student is proud of being considered an artist before anything else. He may hope later on to acquire knowledge in the other inseparable branches of his profession, but he nearly always looks at his career not from a professional but from an artistic point of view."



Une Tapisserie Concours Rougevin. R. Tiers.
(From The Society of Architects Exhibition of Beaux Arts drawings).

The Atelier movement in this country saw the light above a stable in the West End of London. There is something of the Gilbertian in the fact that a movement which had for its object the rearing of stately edifices of beautiful buildings and well-planned towns, could have commenced in such surroundings. To those who go deeply into the psychology of the thing, however, it reveals the mentality, the determination, the tenacity, and the trust that what is right will prevail, of the men who were laying the foundation stones of the training of to-day.

The first step, to be precise, began in Wells Mews, in Wells Street, and as the pioneers received the moral and financial support of the Society of Architects, there was established a kind of club, with Mr. Davis as teaching patron, and a lieutenant, or sous-patron, in the person of M. Chaures, who is now looked upon as one of the leaders in the architectural movement in his own country.

Guiding Spirit.

The objective of the pioneers was to establish an Atelier, and, if it were a success, to form other Ateliers from time to time. As is well-known, there are numbers of excellent schools in the country where the elements of architecture are taught, but there were no opportunities, no encouragement, and no guiding spirit for the ambitious youngster who graduated into one or other of the offices in the country, hide-bound in many cases by convention and all the other drawbacks to the realisation of artistic expression and ideals. The Atelier was for advanced students only ; the fees were made very low, and to encourage the pupils who came, a student who won a competition was allowed to go scot free. This system has since been improved upon. Competitions are to be held from time to time under the auspices of the three Ateliers in London, thus giving a fillip to energy and ambition which will have a very material influence on the architecture of the future.

The pioneer movement in England on the lines of the French ideals was so successful that the founders were beginning to see all the signs that their hopes and ambitions were about to be realised, when the war clouds loomed suddenly over the horizon and, drifting swiftly, hung like a pall over the Atelier.

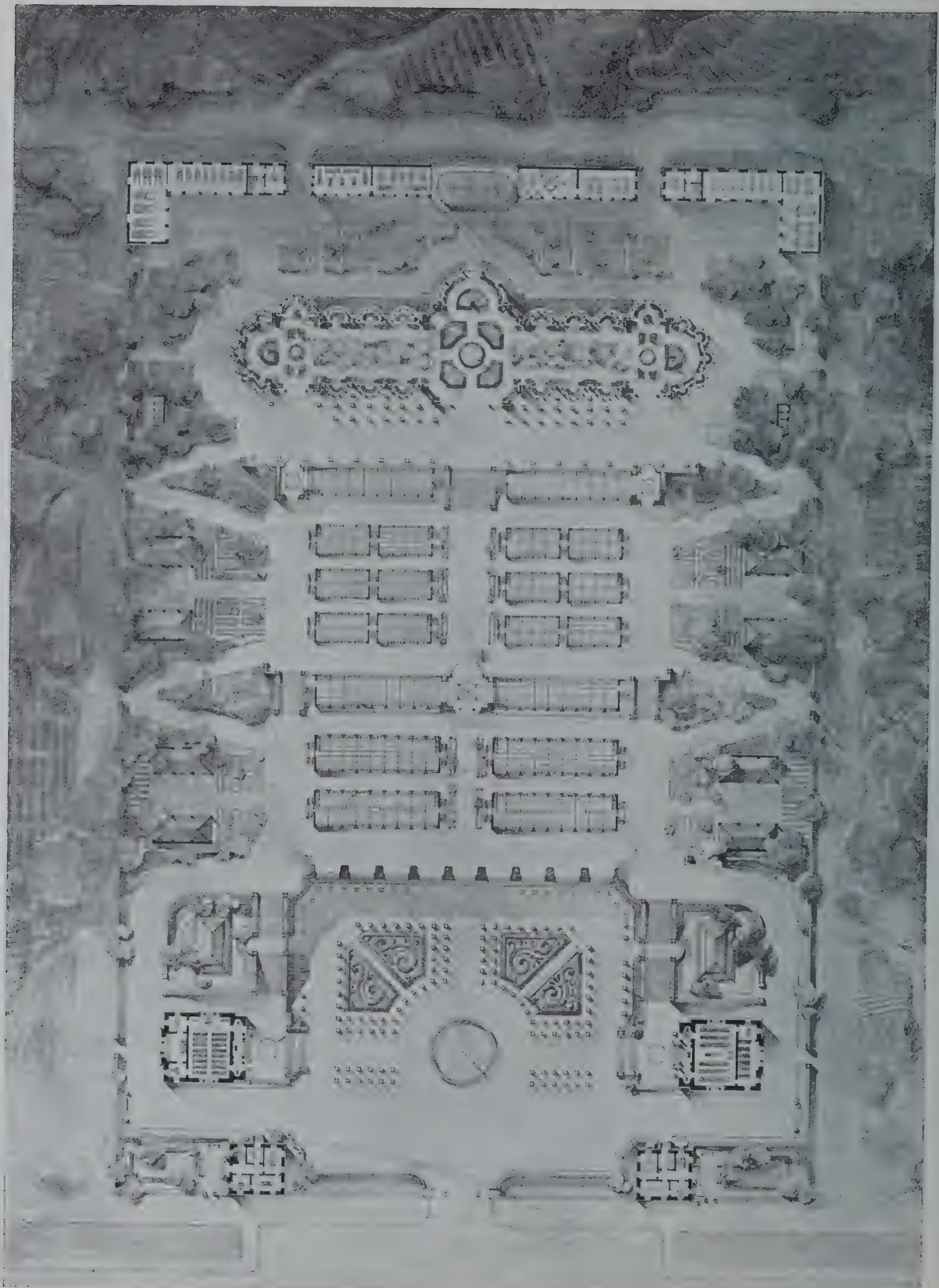
As was only to be expected in a corner of Britain where high ideals existed the members, from the patron and the sous-patron down to the youngest student, answered the call of the Empire. Most of them went to France, and, although the Atelier never closed its doors, it was not until after the armistice that it entered upon the second phase, and in the short time that has elapsed broke down, the barriers which lay between it and recognition. This, then, is the romance. And now a final word about the training.

The student learns under the new régime, both by hard graft and inference, how to get the best out of himself and how to build success upon the foundations of failure—if he does fail.

He goes in the morning with the other students to the Atelier prepared to make a prisoner of himself for twelve hours. He carries with him his lunch and a T-square. The door is locked, and he is given a programme upon which to work.

At the end of that time his plan is judged by the patron and the sous-patron ; he is given a certain number of marks, and the plan is hung up alongside those of the other students. He sees where he has succeeded or failed, and he is able to open his mind to the suggestions for improvement from the patron or from any of his colleagues. There is also a programme set for a plan, which the student, after his design is registered, is allowed to work upon for a final examination in three months, during which time he can have the co-operation and advice he requires.

The valuable part of the training is that the student is trained to be the cornerstone of whatever has to be done.



Une Fleuriste Projet de 1ere Classe. Jean Brelet.
(From The Society of Architects Exhibition of Beaux Arts drawings).

For instance let us suppose that a corporation in the south of England are anxious to have a design for a town hall. If a young architect were to be sent for, and he were to visit the town and say that he knew nothing about town halls, but would go back and study up the subject, the impression he would give would not be a very satisfactory one.

The young architect trained by the new method, however, would go down and find out from anyone competent to give an opinion—the local builder, the town clerk, or the borough engineer—what were the requirements of the borough, and he would immediately make a design of how the building should be laid out. This would be registered. It would not be the last word in the design, for afterwards the corporation would have the valuable co-operation of the progressive brain of the country in the architectural world. The young architect would be open to suggestions tending to enable or make his building more practical. He would not say : " I am the architect chosen by this corporation, and I alone will determine what is good and what is bad." As an artist, he would recognise that it was his duty to get the best design by whatever means lay in his power, always bearing in mind that the first expression towards the final achievement was his, and his alone.

This can only be a brief sketch of what has been done and what is being done, but it is sufficient to indicate what will be done in the future. The spade-work of the Atelier of Mr. Davis and the young band of enthusiasts has prepared the ground that will open up opportunities which the builder never had in his life before, but which, now that reconstruction is in the mind of all, he will seize upon with new hope and enthusiasm.—*The British Builder,* June, 1920.

The Office National des Universities et Ecoles Francaise.

The London Branch of the " Office National des Universities et Ecoles Francaises," which was founded in the summer of 1919, in co-operation with the British and American university organisations of the same type, has, like the head office already existing in Paris, the official recognition and active support of the French Ministry of Public Instruction.

It aims at securing closer intercourse between French, British and American students and teachers, while diffusing a wider knowledge of French intellectual culture of every kind. For this purpose, a library has been set up at 50, Russell Square, W.C.1., for information concerning the universities and the principal State schools of France, together with a lecture-room where eminent French scholars visiting London may give lectures and where French students and teachers may meet their Anglo-Saxon colleagues. There is also a secretariat, the duties of which are to supply every information that may be required regarding the various universities, technical schools, and commercial and artistic establishments of France, in order that English-speaking students and the teachers in charge of their studies may be directed to those towns and establishments which will prove most suitable for the furtherance of their intellectual pursuits. On the other hand, this office is to remain in close contact with British universities in order to direct to the best advantage those students who come over to England for their studies.

The Direction des Beaux-Arts, in Paris, would welcome and assist any intercourse in the teaching of architecture between England and France, and the Office National would be glad to act as the " Liasion Office," to render any assistance that may be suggested.

Lighting of Churches.

The Different Methods which may be Adopted and their Advantages.

At a recent meeting of the Illuminating Engineering Society Mr. John Darch read a paper on "The Lighting of Churches," of which the following is an abstract :

THE CLAIMS OF ARCHITECTURE.—Almost any church will demonstrate that the effort to produce a certain illumination on what is called the working plane—the pew—has been the only consideration and that all other interests of the church have had to take their chance. The fabric of the church, with its impressiveness and its teaching, has ever been an influential factor in church life. It must, therefore, be visible, but its true effect can only be revealed in the light for which it was designed ; consequently, in any other light it becomes an abortion. This may be seen in the City churches. When lighted from below, the cornices, pilasters and ornaments have an upside-down effect ; but where lighted from the front there is no effect at all, for the shadows are wanting. Sometimes a tangle of repeated shadows and high lights is found that reduces the whole to an architectural puzzle.

If the daylighting of old Gothic churches is studied, it will be seen that the nave is lighted principally from the clerestory windows and the large west windows behind. Architects now are but copyists of the work of men of bygone ages, who thought for themselves and who were the soul of a living art. If, therefore, their architecture be adopted, let their method of lighting it be adopted, for the meaning of architecture is in the light that reveals it.

Classic Renaissance architecture is represented by a great many churches in London. The interiors of their prototypes in the sunny south were open courts and were lighted from above ; so also were their later development, the basilicas. Here well-marked shadows impart the beauty and nobility which characterise this style ; and it is from a top light only that it should be lighted.

A church should not be treated as a picture gallery, but there may be reasons why an important work of art should be made easily visible. If its proper illumination is not obtained by the general lighting, local lighting may be necessary, and the principles which govern the lighting of picture galleries should be considered. In any case valuable works of art should be lighted (*a*) sufficiently, and the intensity will depend upon the depth of colour ; (*b*) uniformly ; (*c*) so as to avoid gloss ; and (*d*) with as white a light as can be obtained. The half-watt lamp or the super-heated gas mantle are a good approach to white, but if, with the electric light, it is necessary to bring out the greens and blues, the addition of a small mercury vapour lamp might be better than nothing. Inexpensive decoration, such as a plain colour scheme, perhaps in panels with stencil ornament, may be intended to produce nothing more than an impression of comfort and pleasure ; but even that demands some thought, for in broad masses of colour there is often a small margin between relish and nausea and that difference is easily made possible in lighting.

Artificial illumination from the exterior of the clerestory windows has been tried at Montreal Cathedral, and it is said that that alone enabled one to read in any part of the church. High-power lamps might be successfully employed at clerestory windows and skylights or in what is called deck lighting, because from these points the most natural distribution would be obtained.

RULES FOR CHURCH LIGHTING.—(1) The lamps to be so placed that they do not occupy the field of vision. This rule is a *sin qua non,* and must be strictly observed. It is not sufficient that the bare lamps be covered with prismatic or even opal glass ; nor is it sufficient to raise pendants or shift brackets unless they can be taken out of the field of vision.

(2) The illumination should be sufficient and so arranged that the objects shall appeal readily and truthfully to the eye and so that perception may become a pleasure. The illumination should extend to all parts of the church, leaving no overhead or other masses of obscurity. In many churches, particularly those of Classic Renaissance, there is no valid objection to the ceiling being in stronger illumination. By careful choice of positions of lights, and by taking the fullest advantage of the reflective power of walls, etc., pleasing contrasts may be obtained and violent contrasts avoided. This rule implies that the light should fall as nearly as possible in the natural direction. It also implies a well-diffused light ; not shadowless, but with the variable gradations seen in a good daylight photograph.

(3) The illumination in the pews should be sufficient in intensity and convenient in direction. The amount of illumination should not be less than 1½ foot-candles and need not be more than 2½ foot-candles, but in the choir stalls it should be 2 to 3 foot-candles. The direction of the light is important ; it should fall downward and forward from behind. There should also be some diffusion, for to see the black, hard shadow of one's fingers on the book is suggestive of street lamps.

(4) The colour of the light should approach white as nearly as may be obtainable.

(5) Separate local lighting should be provided for the pulpit and wherever the general lighting is insufficient.

(6) Provision should be made to subdue the general illumination during the sermon or when required. This practice is desirable, as it centralises attention on the preacher and is a quiet relief to the eyes when nothing else requires to be looked at. It should not approximate to darkness, but may be brought down to about one-sixth of full illumination. If the lights are exposed to the preacher it would be better to dim all the lights, or, in suitable cases, to employ small movable screens that can be controlled like a louvre ventilator. But where the lights are not within sight of either preacher or congregation it might be better to extinguish the majority of the lights, leaving a few running full under the control of a separate electric switch or gas valve.

Choice of Methods.—It will be convenient to divide the methods of lighting into six classes as follows, four of which are direct lighting and two indirect. Of these the first is the only one that is ruled out ; either of the remaining five are available for choice.

(*a*) Exposed Low-level Lighting.—This is the common, but no less barbarous, method of placing brilliant bare or glass-covered lights before the eyes of worshippers.

(*b*) Shaded Low-level Lighting.—This consists of a method of shading only, and can be applied to existing installations to ameliorate or cure the evils of (*a*). The shades should be either opaque or nearly so, *i.e.*, not exceeding a surface brightness of .05 candle power per square inch or 7 candle power per square foot. In some cases simple flat screens, in others half round, quite small, would be sufficient, and there would be cases where proper rings would be desirable. There is no reason why the glassware itself should not become a real shade. The effect in comfort and increased visibility would well repay the cost.

(*c*) Overhead Direct Lighting.—It may be concentrated in a few units or distributed over many points. In overhead lighting we take a leaf out of the text-book of Nature. Such lighting illumines the whole interior more naturally and affords good visibility and freedom from glare. It is particularly appropriate to churches with panelled and other ceilings, but the character of any installation would be governed by the design of the ceiling or roof. One of the best devices for overhead gas lighting is the ventilating sunburner. The older type of open flame burner has already been in use in a number of churches and was found costly, but the modern types which employ clusters of small, and therefore durable, mantles, give as much as from 650 to 1,000 candle-power for only 20 cubic feet of gas per hour. Arrangements can be made for lowering the burners, and access is facilitated when there is a roof space over the ceiling. The half-watt electric lamp could be economically employed in the same way. It is important in any kind of overhead lighting that the lights do not come within the angle of view. The eyebrow angle is 25 degrees to 30 degrees, but that angle might in these cases be extended to 35 degrees, or the foremost unit might be shielded so as to preserve that angle.

(*d*) CONCEALED DIRECT LIGHTING.—In this method lamps are placed behind arches, window reveals, columns, etc., and are not visible from the ordinary point of view. This method will be available in most Gothic churches. The chancel calls most loudly for concealed lighting, with its improved visibility and charming effects; but the whole church may be lighted in the same way. We have many old churches with open roof trusses and low tie beams, behind which lights may be easily concealed.

(*e*) INDIRECT LIGHTING.—Indirect lighting may be obtained from opaque bowls, containing concealed lamps and reflectors. These are generally suspended, but may be placed on brackets or high standards. Indirect lighting is best suited to churches with light-coloured domes, vaulting or other expansive ceilings, and light upper walls. As the reflective power of these surfaces is an essential factor in the illumination they should not be allowed to get too dirty. Its characteristic is its natural overhead illumination—and its advantages are its agreeable diffusion, its power of softening, without destroying, the shadows; and particularly the high visual efficiency that is possible with it. It is said to be less efficient per lumens generated than direct lighting, but the advantages, combined with the possibility of using powerful and economic lighting units, should compensate for the loss in absorption. This method is admirably suited to domes, for distance does not kill light, and a reflecting enclosure conserves it.

(*f*) INDIRECT LIGHTING FROM CONCEALED POSITIONS.—This method can be used only in churches whose architectural features are adapted to it, such as suitable cornices, clerestory, and other high window sills, the tops of screens, and columns, etc. A possible objection would be the risk of great inequality of illumination, but this may be corrected by combining methods (*e*) or (*d*) with it. In considering the various methods above described, there is, of course, no reason, should the case demand it, why combinations of the methods should not be adopted, providing that unity of design in the lighting is not impaired.

PULPIT LIGHTING.—This must be governed by the following rules: Firstly, in the interests of the congregation, (*a*) neither the lamps nor the insides of the reflectors to be exposed to view; (*b*) the preacher's face to be naturally shadowed so that every expression is observable; (*c*) the reflectors to be well clear of the preacher's head, but not too far for economy of light. Secondly, in the interest of the preacher: (*d*) the light to be outside his angle of vision; (*e*) the paper gloss angle to be avoided; (*f*) the desk illumination to be about 4 foot-candles; (*g*) the switch to be in the pulpit. A second switch might be desirable to vary the intensity.

PORCH LIGHTING.—Porches, with their unexpected steps and mats, are frequently a source of anxiety to old people and a danger to all, and need careful lighting. A central pendant or other light that can be seen on approach should not be used; neither should a modern antique lantern that casts broad bars of shadow to increase confusion. Any light may be used, with or without glass, if it can be concealed by the arches or is otherwise screened. Screening and concealing should, and could, be done without prejudice to the illumination. The character of the porch must be taken into consideration.

Stability of Thin Walls and Heat Transmission Through Thin Walls.

The subjoined sections of the Report of the Building Materials Research Committee under the Department of Scientific and Industrial Research are published in advance of the body of the Report by the Ministry of Health in its official organ, *Housing*, for July 19th, 1920, with the sanction of the Department. These sections comprising the results of researches on (1) the stability of thin walls, and (2) heat transmission through thin walls, are based on experimental work carried out under the direction of the Committee. The figures given must only be taken as giving the results of certain tests carried out on the materials mentioned under the conditions specified. It must not be assumed that the strength of walls under average constructions will necessarily reach the standard of the figures quoted.

(1) STABILITY OF THIN WALLS.

It is generally realised that the actual stability of unsupported walls only a few inches thick is very small, and that such walls in practice always receive support either at the top or sides or both. It appeared, therefore, to the Committee that the most practical method of attacking the problem was to ascertain the breaking strength of typical walls when subjected to crushing loads and horizontal pressure applied to the walls while held at the top and bottom. This would correspond roughly to a wall having in it two door openings, the strength of a wall with no openings being somewhat greater.

The difficulty of applying loads by directly weighting the walls was realised. It was found possible to secure the use of a hydraulic testing machine, which was capable of crushing short walls 8 ft. 6 in. high, which is about the height between floors in a building of the cottage type.

Tests were made on several commonly used materials, and each material was loaded to destruction in three ways : (1) small cubes generally 6 or 9 in. square were crushed in order to ascertain the strength of the material when not used as a thin structure ; (2) columns or pillars 14 in. wide from $2\frac{5}{8}$ in. to $4\frac{1}{2}$ in. thick, and 8 ft. 6 in. high. These narrow, thin walls or pillars were crushed, and their relative strengths compared with the cubes ascertained ; (3) short lengths of wall 3 ft. 6 in. wide from $2\frac{1}{2}$ in. to $4\frac{5}{8}$ in. thick and 8 ft. 6 in. high. These were subjected to a vertical load of about one ton per lineal foot of wall, and, while thus loaded, a horizontal pull was applied to the wall at the middle of its height until failure took place.

As the investigation was somewhat tentative, a part only was undertaken in the first place, and a second series of tests was begun after the first results were available. The results are given in the accompanying table.

Considered as a whole the results obtained are remarkably consistent, more so than is usually the case in tests of full-sized specimens. The principal facts brought out are the high relative resistance to crushing shown by the slender walls or pillars, and the weakness of the lime mortar compared with Portland cement when tested in this way. With the exception of the wall built with lime mortar, the crushing strength of the walls varies from 67 to 83 per cent. of the strength of the same material crushed in cubes. The lime mortar only showed 32 per cent. *The high percentage strength is to some extent due to the care exercised in centring the column under test.*

It is, however, clear that strengths approaching these can be developed in practice, provided care is exercised in the bedding of the joists so that the load acts as nearly as possible through the centre of the wall. It is also necessary that the wall should be absolutely vertical.

Reference to items 5 and 6 of the appended Table of Results shows that the walls built with Fletton bricks on edge in cement ($2\frac{5}{8}$ in. thick) resisted a much higher crushing load and horizontal pull than those built with the same bricks laid flat in lime mortar ($4\frac{1}{2}$ in. thick).

The coke breeze specimens showed low resistance to crushing, but a comparison of the strength of the cubes with that of the walls shows that, in spite of the low strength of the material, the percentage of strength of the wall is high as compared, for example, with that shown by the wall composed of Fletton bricks. Against the horizontal pull they gave better results than would be expected. All the concrete and breeze blocks show a high resistance to the transverse loads as compared with walls formed from smaller units such as bricks.

It appears from the tests that walls as thin as $2\frac{5}{8}$ in. can safely be used for partitions in cottage building, even when supporting the joists.

(2) HEAT TRANSMISSION THROUGH THIN WALLS.

The degree of physical comfort experienced in an ordinary dwelling-house depends to a great extent upon the thickness and construction of the outer walls. In dwellings of Devonshire cob or similar construction the comparative weakness of the materials composing the walls in resisting compressive stresses renders it necessary for the walls to be much thicker than is ordinarily the case in brick houses. As a result, dwellings of this type are noted as being cool in summer and warm in winter. Other methods, of which the use of the ordinary unventilated cavity wall is one, are sometimes adopted with a view to obtaining a warm dwelling.

Tests of the heat loss through various types of thick walls have been made from time to time ; of these special attention may be directed to the work carried out by Mr. A. H. Barker, WH.S., B.A., B.SC., Professor W. M. Thornton, D.SC., D.ENG. of Armstrong College, and at the National Physical Laboratory. A considerable amount of work on this subject has also been done abroad, particularly in America and in Germany. The Committee thought, however, that further tests were desirable in reference to thin walls and walls of new types of construction. They therefore decided to ask Mr. Barker to undertake for them a research into the heat transmission through some seven different types of wall.

The methods adopted by Mr. Barker in carrying out these tests are fully described in the account of the previous series of experiments carried out on behalf of the Institution of Heating and Ventilating Engineers. Certain modifications in these methods were made for the purpose of conducting the series of experiments carried out on behalf of the Committee, and are described in Mr. Barker's Report. It may be sufficient to remark here that the tests were carried out in a laboratory under carefully-considered conditions, namely, in still air with walls consistently dry. The results obtained are summarised below.

When heat is passing from a region of comparatively high temperature through a partition of some kind to a region of low temperature the heat transmitted can be said broadly to depend on :—

(1) The construction and material of the wall ;
(2) The character of the surface of the wall ;
(3) The area of wall ;
(4) The temperature difference between the regions of high and low temperature.

The actual heat transmitted in British Thermal Units in still air will then for any particular case be given by the formula :—

$$H = K (t_1 - t_2) A$$

where :

H—British Thermal Units transmitted per unit time.
t_1—Higher temperature in degrees Fahrenheit.
t_2—Lower temperatures in degrees Fahrenheit.
A—Area of the wall in square feet.
K—A constant, depending upon construction and material of the wall and condition of the surface.

It will be seen, then, that the constant K (sometimes termed the coefficient of transmission) will be a measure of the efficiency of the wall as a heat insulating structure, representing the overall value of the transmission in British Thermal Units per square foot per hour per degree difference of temperature on the two sides of the wall.

Values of this constant K for the walls tested by Mr. Barker are given below :—

	Type of Wall.	*Value of K.*
9 in.	plain unplastered brick wall (London Stock)	0.43
4½ ,,	plain brick wall unplastered	0.57
4½ ,,	double brick wall 3 in. cavity (without ventilation)	0.33
4½ ,,	double brick wall 3 in. cavity (ventilated top and bottom)	0.42
4½ ,,	rough ballast concrete 6 to 1	0.61
4½ ,,	rough breeze concrete	0.55
6 ,,	rough ballast concrete	0.57
9 ,,	concrete blocks with cavity in each block	0.52
4 ,,	hollow brick tile	0.44
4 ,,	ballast concrete wall outside 2 in. cavity and 4 in. coke breeze concrete inside (without ventilation)	0.30
4 ,,	ballast concrete wall outside 2 in. cavity and 4 in. coke breeze concrete inside (ventilated top and bottom)	0.35

Thus, of the walls tested by Mr. Barker, the 4½ in. rough ballast concrete wall offers the least resistance, while the 10 in. concrete cavity unventilated wall with the inner partition of coke breeze offers the greatest resistance to the flow of heat. The latter type of wall doubtless partly owes its efficiency as a heat insulator to the porous nature of the breeze, as it is, of course, a well-known fact that good insulators, such as cork, slag wool or wood owe their insulating properties to the large number of small air spaces contained within their mass.

It will be noticed that in these examples the difference in the value of K with a cavity wall when ventilated and not ventilated appears to be small ; but the effect of ventilation on the transmission of heat is governed by the extent to which circulation occurs in the cavity under ordinary weather conditions. This will depend upon the force of the wind, which on some days might be very high, and on the difference between the temperatures of the inner and outer atmospheres. Either or both of these factors might have the effect of increasing the circulation if ventilation is provided both at the top and bottom of the cavity.

It may be said, therefore, that comparatively little is lost in the insulating effect of the wall by providing a limited amount of ventilation in the cavity, particularly if this is arranged at the base of the cavity only.

The loss of heat in all the walls may be greater under actual conditions than these tests indicate, owing to the increased cooling effect which would be produced by the action of wind or the evaporation of damp on the external surface of the wall. This might reduce the temperature of the external face of the wall by as much as two or three degrees below that of the surrounding air, depending upon the wet bulb temperature obtaining at the time.

RESULTS OF EXPERIMENTS ON STRENGTH OF THIN WALLS.

	Description.	Crushing strength of cube.	Age of cube when tested	Crushing strength of wall 14 in. wide by 8 ft. 6 in. high	Age of wall when tested	Horizontal pull to break wall 3 in. to 6 in. × 8 ft. 6 in. high under vertical load of 1 ton per ft. run.	Age of wall when tested under horizontal pull.
		lbs. per sq. in.	days.	lbs. per sq. in.	days.	lbs.	days.
1	*Stock bricks 3 to 1 cement mortar wall 4½in. thick(9 × 9 × 9)	770	26	638	24	895	34*
2	Ditto, 6 to 1 cement mortar	720	26	562	23	791	41
3	Fletton bricks 3 to 1 cement mortar wall 4½ in. thick ...	1,530	26	1,040	24	781	39
4	Ditto, 6 to 1 cement mortar wall 4½ in. thick	1,250	26	930	23	705	36
5	Ditto, 3 to 1 lime mortar wall 4½in. thick	1,050	22	330	24	375	27
6	Ditto, on edge, 3 to 1 cement mortar wall 2⅝ in. thick ...	1,470	29	1,040	23	553	44
7	Concrete, 1 : 2 : 4 wall 4½ in. thick cast in one piece	1,480 2,250	22 42	1,230	26	1,262	27
8	Concrete blocks, 1 : 2 : 4, set in 3 to 1 cement mortar wall 4½ in. thick 14 in. × 9 in. × 4½ in.	1,480 2,250	22 42	1,510	22	1,253	25
9	Concrete blocks (Winget 4 : 2 : 1) wall 4½ in. thick (block 6in. × 6in. × 4½in.) ...	743†	120	580	24	962	44
10	Concrete blocks, 4 : 2 : 1 (wet process) wall 3in. thick (block 6in. × 6 in. × 6 in.: 6 in. × 6in. × 3in.) ...	1,630† 1,240†	29 29	1,130	24	700	32
11	Coke breeze blocks, wall 3in. thick (6in. × 6in. × 3in.) ...	236†	unknown	170	22	467 (slab)	41
12	Coke breeze blocks wall 4in. thick (6 in. × 6 in. × 4 in.) ...	243†	Do.	173	22	658 (slab)	41

* In this specimen a vertical load of two tons per ft. run applied in connection with horizontal pull test.

† These specimens were cut from a larger block as true as possible but not faced, and no doubt were really stronger than the tests indicate

Research Work in Heating and Ventilating Engineering.

At a Conference called by the Council of the Institution of Heating and Ventilating Engineering, held on February 5th, 1920, and attended by delegates from kindred institutions, Mr. Edgar Herring, the President of the Institution of Heating and Ventilating Engineers, explained that the Conference had been called to find some practical plan whereby the work already accomplished by the Research Committee of the Institution might be consolidated, and placed on a sound financial basis. America and Germany were ahead of this country, but the character of the data which had been collected was not altogether applicable to British climatic conditions, and other factors were the differences in methods of construction and in the heat-transmitting properties of our own building materials. Until the heat transmission losses of building materials could be closely determined, available materials could not be utilised to the best advantage, or the greatest economy expected from the combustion of fuel for heating purposes.

Research work was hampered by lack of funds. The Institution Committee had come to the end of its resources, and unless a substantial measure of support was promptly forthcoming, the work might have to be suspended. Research work was only being prosecuted in five directions, but the field was very wide indeed.

Mr. A. H. Barker referred to the extraordinary difficulties under which the work had been conducted since he started in 1911, with the aid of a very moderate subscription fund, and some practical help from the makers of boilers and radiators, who took an enlightened view of the possible advantages of the enterprise. The London County Council made a grant, which had since been discontinued, because the number of students did not warrant it on educational grounds, and it was not competent for the Council to endow research work.

University College authorities were sympathetic, but they had to provide for other departments that were liberally supported, and he was confronted with another notice to quit. It was disheartening in the middle of an exhaustive set of experiments to be liable to be turned out, and to have to store the plant, and he could no longer continue to give of his time and money without some sort of guarantee that the work would be carried on continuously. The College authorities could not provide the funds to run the Department, but they had offered the Research Institution a site if he could provide a suitable building. He wanted £10,000 to build an Institute of general domestic science, involving everything to do with the comfort and well-being in housing matters of the people ; such things, for instance, as the investigation of cooking ranges, and gas and electric appliances. Referring to the financial difficulties under which the work had been carried on, Mr. Barker said it had been one long continuous struggle to make both ends meet. If they wanted one piece of apparatus, they had to look round them to see how they could raise the funds to buy it. They had had some generous helpers, and fortunately they had come into contact with the Department of Scientific and Industrial Research. The contributions from that source could not be described as liberal, but having regard to the number of other claims made on the Department, he thought they had been treated fairly. The, Institution of Heating and Ventilating Engineers had been the mainstay of the work and various manufacturers had also been generous. There was another side of the work that was in even a worse state. The result of the past ten years' work, in the form of manuscripts and notes and laboratory books, representing an enormous amount of labour, awaited publication. The results of all the work done by himself during overtime, and by his assistants at odd times, were all in manuscript, but they had no money to publish it, and his assistants, who were exceedingly capable men, were getting discouraged. In short, they wanted money for a permanent home and for publishing the results of their researches, and if those present could help, through the Institutions they represented, by contributions, or by suggesting a means whereby they could get money, they would be only too glad. If they were turned out of their present rooms, and had no place to go to, he must regretfully resign his connection with the work.

Mr. Gayer, of the Institute of Builders, contended that while it might be true that there was greater need for research work in heating and ventilating than in any other branches of the building trade, there were other departments in which similar work was waiting to be done. He asked whether there was any possibility of getting an adequate grant if pressure were put upon the proper department, on the ground that, if the work were done, benefits would accrue to the whole community. If the Institute of Builders and similar bodies supported such an application, the prospect of getting a contribution from State funds should be correspondingly improved.

Mr. George Hubbard, F.R.I.B.A., assured the meeting that his Institute would support any application to obtain State aid.

Mr. Herring explained that State aid was forthcoming only on the principle of pound-for-pound, and he was afraid that no amount of support would be fruitful, unless to the application a guarantee was attached, that a substantial contribution would be made by the trades interested in the enquiry.

Mr. Hubbard suggested that the pound-for-pound principle did not take into account the value of research work ; the amount subscribed by private persons ought not to limit the Government grant, for the State ought to take into consideration the value of, and necessity for, the work that was undertaken. The Chairman agreed, but pointed out that the task of convincing a Government Department that its procedure was wrong, was an unpromising business.

A proposal was made that an effort should be made, through the Press, to raise the special fund, and the Conference reached the conclusion that a Press campaign was necessary, and that it would stand the best chance of success if it were supported, from its initiation, by other and stronger Institutions.

Mr. Hubbard reminded the meeting that the Ministry of Health had enormous powers, and that it had started its career without preconceived prejudices. Old ideas about the thickness and materials of walls were giving place to new, and, as far as he knew, the new department had no laboratory in which materials proposed to be employed in building could be submitted to scientific tests. The Institution should offer to carry out such tests, and to advise the Ministry on the heat conducting properties of these materials. Mr. Barker pointed out that a good deal had been done in that direction already.

Dr. C. H. Lander, of the Scientific and Industrial Research Department, said the Government was trying to assist research by paying outright for purely scientific work, which at first sight did not appear to have any industrial application, and by making grants to Research Associations which made provision for raising a steady income from the industries concerned. This country had been backward in research ; firms and industries had not recognised its importance to anything like the extent that had been the case elsewhere, and the Department had laid down the general rule of pound-for-pound (within certain limits) when negotiating with Research Associations. In certain cases, for example, in " Key " industries, the Government paid more than pound-for-pound, and in cases where public health was concerned, and where the matter was vital to everybody, they went further still and instituted Boards ;

in those cases the Department paid the whole cost. Without committing the Advisory Council, he thought its attitude was that the particular research with which the Conference was concerned was one of great importance. The Fuel Research Board had seen all Mr. Barker's reports and taken a great interest in them, and the Building Materials Research Committee were also very interested in the work. Mr. Hubbard had raised the question of a Board for Building Research work. It might be a little premature, but he could add that such a Board was on the way to being formed.* The scope of such a Board would be wide, but he did not know whether it would cover questions of heating and ventilation. It was possible, however, that either the Fuel Research Board, or the Building Board, might be able to help in the matter.

Promises of support and co-operation were then given by Mr. A. W. Wyatt, on behalf of the Association of Engineers-in-Charge, and by the delegates from the Institution of Gas Engineers, and the Electrical Research Committee.

Mr. E. B. Wodmore, for the last-named, stated that his Committee had found that it would be impossible to establish laboratories which would be adequate for carrying out the work that was required. It would be within the programme of his Committee if some of its members, interested in cooking experiments, were to go to the Institution of Heating and Ventilating Engineers and get that Research Department to make an offer to transfer the whole of that part of the work to them. That would be as far as his Committee could go, in the way of making a contribution that would assist the research work of the Institution. The research work which had been carried out at University College for so long a time, constituted a very strong claim on the Government for assistance, on at least as liberal a scale as was given to purely industrial research.

In regard to the proposed Press campaign, it might be a good thing if the Institution Publication Committee were asked to take up the matter, and as an alternative, it was pointed out that the University could command a degree of support that an Institution could hardly hope to gain, because in a campaign along the lines contemplated, a suspicion that somebody was going to get something out of it, was easily aroused.

A Building (Materials and Construction) Board has since been formed by the Department of Scientific and Industrial Research.—ED.

The Examination Millstone.

The American Institute is to be congratulated on having decided to abolish the examination system. It is a millstone round our necks. There might be something to be said for examinations if we knew exactly what we wanted to teach, but so long as architecture remains in its present experimental stage, they do more harm than good, for they tend to strangle at the beginning any new development of thought. I am firmly convinced that the examination system is one of the things that keeps us out of the promised land. It robs the architect of intellectual independence, and independence is the breath of life in art. No wonder the tail wags the dog in these days.—*A. J. Penty in the Journal of the American Institute of Architects.*

Ninth National Congress of Belgian Architects.

FEDERATION AND REGISTRATION.

BY W. E. WOOLLEY, M.S.A., MEMBRE CORRESPONDENCE DE LA SOCIÉTÉ CENTRALE D'ARCHITECTURE DE BELGIQUE, AND THE ASSOCIATION DES ARCHITECTES DE LIÉGE, ETC.

An adjourned meeting of the above Congress was held on June 27th, 1920, at the Palais de la Bourse, Brussels, over 150 confréres being present, under the chairmanship of M. Gustave Maukels, President of the Federation of Societies of Architects of Belgium. It was reported that the Federation Officials were seeking an audience with the Minister of Sciences and Arts with a view to demonstrating to him the importance and the utility of creating an Architects' Diploma. We are informed that later on the Minister of Sciences and Arts received the Federation Officials on July 26th, when he stated his belief in the utility of the diploma. Concerning the division of work, the Federation had been received by Minister Renkin, who expressed himself in sympathy with the formation of a consultative committee of architects which now existed and dealt with the reconstruction works of the country. It was reported that the Government had created a National Society endowed with a budget of 100 millions of francs to deal with housing schemes, and had formed a technical department to deal with and check schemes submitted. Confrére Puissant was appointed to take charge of this work. Reports by the Secretaries, M.M. Puissant and Gilson were read, showing that apart from technical difficulties, extremely high labour charges and delays in obtaining materials render the solution of the housing problem much more difficult than one would suppose, and the President referred to the error likely to be made in reducing the dimensions of rooms in dwellings in order to lessen the cost. This had been done in England and was now being combated. On the proposition of Confrére Snyers, President of the Liége Association of Architects, the scale of the Central Society adopted by the Federation was adhered to, subject to one alteration. The President read a letter from the Assistant High Commissioner of Brabant and Hainaut, announcing a competition for farm buildings. It was decided to hold the next Congress at Liége during August and September, 1921.

From the foregoing, it will be noted that Belgian Architects are very much alive to the needs of their sorely stricken country, as shown by their setting up a Committee dealing with reconstruction, and that they are likely to experience difficulties in trying to effect economies in building similar to those encountered in this country. It is worthy of note that the Federation was in existence long before the French Federation, and the diploma movement may be regarded as a form of statutory registration. No doubt these examples of unity will have due weight with the advocates of Federation in this country.—ED.

Form of Contract.

The Society's form of Building Contract has been reprinted with slight alterations, and can now be obtained from the offices of the Society, 28, Bedford Square, W.C.1, at a charge of one shilling (post free 1s. 2d.).

Westminster Abbey. The Choice of Stone.

Mr. Somers Clarke, who has an intimate professional knowledge of the Abbey Church, and who has for many years had charge of the fabric of St. Paul's Cathedral, in the course of a letter to the *Times*, says the Abbey Church was built very largely of Reigate stone, at that time the most accessible building stone to London. It is a sandstone by no means of fine quality. But early in the reign of Henry III. what means of transport existed to bring a better material to the site ? Good sandstone, it is well known, will stand the trials of a town atmosphere better than limestone. In the case of the Abbey Church more than 300 years ago there were bitter complaints in regard to the terrible destruction from which it was suffering from the depredations of " the coal smoke."

The most recent part of the Abbey Church is Henry VII.'s Chapel, in building which nothing was to be spared to attain perfection. The King directs in his will that " the Chapel shall be finished in as good a manner as to a King's work apperteignith " ; yet Sir Christopher Wren reports that " it is eaten up by our weather," whilst Dart, whose history of Westminster Abbey was published as far back as 1725, tells us that statues on the exterior were pulled down for fear they should fall on the heads of the passers by.

With Wren comes in the reign of Portland stone. At that time the north front of the transept was a deplorable ruin. It was encased (and not a little changed in its form) with Portland stone.

Speaking generally, may we not call the period of the works referred to as belonging to the beginning of the 18th century ? The works then executed were of a rather miserable nature. The flying buttresses, so important in maintaining the vaulted roofs, were, many of them, perished to a depth of three or more inches, and this over their whole surface ; they were consequently thinner by some eight inches than they should be. These were skinned until a clean, new surface was arrived at ; thus their strength and constructive value were seriously diminished. The clerestory walls were similarly treated.

As for the north transept before referred to, the vertical surfaces of this were "flagged," as Mr. Lethaby has related. Many a time during the progress of the recent reconstruction of this facade I have looked down into great chasms five or six feet deep between the crumbling surfaces of the ancient structure and the miserable "flagging" with which it had been disguised. There were severe critics of Mr. Pearson's drastic " restorations " of this facade, but the new work was, at any rate, as sound and solid as possible. In this work Chilmark stone was, I think, made use of, and some of it is already perishing. It is a limestone.

We now come to the question of the use of Portland stone. This material at the Abbey Church has perished and is now perishing. It is stated that all works of repair are to be executed in Portland stone. May I ask what are its particular merits ? Let us inquire how it has justified itself in times past.

We have in St. Paul's Cathedral a very great structure, the exterior entirely of Portland stone. Compared with the Abbey Church, we may almost call St. Paul's a modern building. It was begun in 1675. In 1697 the eastern limb was completed and used. We learn that the walls west of this were, at that time, also carried up to a great height. Very large surfaces were therefore exposed to the weather and London filth. From 1697 to 1920 is 223 years. The masonry of the lantern surmounting the dome was finished in 1710. From that date to this is but 210 years. What a short period this is in the age of a great monument ! What is the condition in which we now find this masonry to be? It has perished with great uniformity over its whole surface to a depth of about half-an-inch. The surfaces of the stonework lower down have perished, but to a slightly lesser degree; wherever we observe the surfaces to be clean and white there the degradation is going on.

Portland stone is full of little fossils. The sulphurous ingredients of the London air do not attack these fossils. By the height which they now stand up above the existing surfaces it is easy to tell what the degradation has been. It is to be feared that the public is under the impression that when it sees Portland stone "nice and white" its admirable qualities are displayed, when in fact it is the gloomy black surfaces that are well preserved.

The evil rests with the British public—its wasteful indifference and misuse in the burning of coal. A letter has already been published in your columns calling attention to the millions of money sent up our chimneys, and the millions of money lost in damage to ourselves and nearly all substances. Have we no hope? Will the public never mend its ways? In the meantime must all we now hope to do in repair begin immediately to perish? Why must we make use of limestone? It is well known that sandstones of suitable quality are more resistant than limestones. Let us compare like with like. In the North of England and South of Scotland are towns more horribly smothered in a perpetual night than even London. Let us take Glasgow as an example. Yet I think it will be found that masonry in that city is not so quickly disintegrated as in London. How is the case in Liverpool or Manchester? Is not sandstone made use of?

May the suggestion be made that a small commission of three or four competent men be assembled who shall be instructed to travel around, to see for themselves what may be learnt on this subject, before it is too late?

Professor W. R. Lethaby, in commenting on Mr. Somers Clarke's suggestions expresses the view that Portland stone in London decays very slowly, the surface falling away in powder, while below it the stone remains sound. The other stones which have been used seem, on the contrary, to rot to a considerable depth.

He calls attention to the general problem of stone preservation in our climate, and especially in large cities. All modern stone buildings should, he thinks, be coated over the surface with a preservative wash as a regular part of building procedure. The custom has been to "clean off the work" at the end, leaving all the pores of the stone open for the agents of decay to begin their action at once, especially at the joints of the masonry, which are often slightly recessed, so that moisture will lodge there. The jointing should be flush and firm, and the whole surface of the stone-work should be covered with a wash of lime tinted to the colour of the stone, or with some application which will stop the absorption of moisture. People think they would dislike lime-washes as being in some way "improper," but the use of lime in this way was traditional in the Middle Ages, and it was not at all introduced by churchwardens. He, himself, dislikes raw and naked new stonework, as he cannot forget what is happening to it unrestingly.

Mr. E. J. Sadgrove, President of The Society of Architects, in a letter in the *Times*, supports Professor Lethaby's recommendation that a preservative fluid should be applied to the stone when the building is erected, but strongly disagrees with the suggestion that the preservative may be a "limewash." Mr. Sadgrove's personal experience shows that to cloak the stone with anything in the nature of a thick material such as "limewash" or "cement slurry" does more harm to the stone than leaving it untouched. The proper thing to do is to use a colourless " solution " which should soak into the stone, its effect being to harden the face without either discolouring or concealing the natural grain of the stone. Such a solution is obtainable, and he has used it with marked success for many years. The danger of using a " slurry " or " distemper " is that in a comparatively short time the " slurry " deteriorates and allows the rain to get between it and the stone, retarding evaporation and accelerating decomposition. If stonework in London is periodically brushed down and treated with preservative as before described, it will withstand all the stone-destroying elements in our London atmosphere.

With regard to " restoration," Mr. Sadgrove claims that where large stones are decayed, even to the depth of several inches, there is no justification for destroying the remainder of the block by chopping it out in order to replace a new stone. In the first place, it is a slow process and very costly ; secondly, the jarring of the mason's tools disturbs and loosens the joints of the fabric immediately adjoining ; and, thirdly, a great deal more of the ancient stone is destroyed than is necessary. A better way of doing it is to cut away all the decayed parts back to a clean face, and then build forward from that face with a composition which forms a chemical adhesion to the old stone, and which can be carved, moulded, and worked just the same as quarried stone, and which cannot be detected from it ; in fact, Mr. Sadgrove has had the old stone from an anceint fabric actually crushed up and reconstituted and used in the repairs, which he submits is a more justifiable way of carrying out restoration than inserting large quantities of new stone which have no connection whatsoever with the historical edifice.

In these times, when work of all kinds is so extremely costly, a system such as is mentioned might be utilised to great advantage in the Abbey restoration, especially in those parts where the carved and pierced masonry is only partly decayed. Thousands of pounds could be saved in that way.

SMOKE-RESISTING STONE.

An interesting divergence—and a still more interesting fundamental agreement—of opinion about the proper stone for London buildings and its proper preservation is shown by the letters from three eminent architects which we have recently published.

Mr. Somers Clarke, before his retirement a well known architect and surveyor of St. Paul's Cathedral, is inclined to doubt the power of Portland stone to resist the London air. Mr. Lethaby upholds Portland stone, instancing its endurance for 200 years in the Western towers of the Abbey ; but advocates the use in all cases of a limewash or some such preservative. Mr. Edwin J. Sadgrove, President of The Society of Architects, is opposed to limewash, and recommends a colourless " solution," which he has used with success for many years. It is a matter of national importance, and will remain so as long as we burn coal in the present manner. The cost of keeping Government buildings alone in repair must be enormous ; and the man or the commision (as suggested by Mr. Somers Clarke) that should discover the best stone and the best wash would be conferring a great financial and artistic benefit on London and all our great towns.—*The Times.*

A note on Durability and Sentiment by Mr. J. Allen Howe, and a reference to the work of the Research Committee of the R.I.B.A. by Mr. Alan Munby, conclude the correspondence on the subject in *The Times.*

Correspondence.

To the Editor,
The Journal of the Society of Architects,
28, Bedford Square, W.C.1.

Sir,

"Wrencote," Croydon.

You have no doubt seen Mr. Lindlay Latham's letter in the current issue of *The Builder*, in which he enquires whether measured drawings have been made of the above.

At the present time many historic places are doomed to demolition and many more are soon to follow. My opinion is that measured drawings of *all* historic buildings, such as "Wrencote," Croydon ; Devonshire House, Piccadilly ; &c. : should be made and kept as records for the use of architects and architectural students of this and future generations. Doubtless many buildings are measured each year, but there is no system ; some may be measured several times, and some not at all, while others of no historic interest are recorded.

I therefore appeal to you to give me your aid in finding suitable men who are willing to devote some time to :

(*a*) Ascertaining what buildings have been measured and whether the records are sufficient and in safe custody.

(*b*) Discovering buildings worthy of having records made, but of which no records exist.

(*c*) Carefully measuring and drawing out records of buildings mentioned in (*b*) above.

The work should begin *at once*, the records might be kept by the Society, indexed and available for the reference of members and other interested persons. Where drawings already exist and are in the keeping of another Institution a note should be made of the fact.

If members of the Society will give me their assistance and the Society its support, it will be encouraging a good work.

I shall be pleased to hear from members and others who are interested.

In the meantime, will anyone volunteer to help me to measure "Wrencote," Croydon, if no drawings exist ?

FRANK H. WAPLE, M.S.A.

6, Corringham Road, Golder's Green, N.W.4.
August 14th, 1920.

Addresses Wanted.

MEMBERS.

The Society's Journals sent to the following Members, etc., have been returned through the post marked "Gone away." The Secretary will be glad to hear from anyone who can put him in communication with any of these Members.

C. A. Aish (London).
H. C. Anderson (Heywood).
J. Bevir (Lymington).
G. A. Birkenhead (Vancouver).
J. E. Broderick (Montreal).
W. G. Campbell (Johannesburg).
A. E. Chasemore (Upham).
F. Clemes (Grimsby).
P. Rogers Cooke (Germiston, South Africa).
E. N. Cubitt (Brentwood).
G. W. Davies (Grimsby).
J. L. Donnelly (Dublin).
R. K. Fearnside (Wembley).
S. A. Hall (London).
J. M. Hatfield (Barnes).
T. J. Holland (London).
R. R. W. Hyde (Worthing).
H. Jackson (London).
David J. Jones (Ealing).
A. E. King (Mansfield).
W. E. Knapman (Exmouth).
W. Langcake (London).
W. Leicester (Manchester).
A. J. Lewis (Southsea).
R. T. MacArthur (Birmingham)
J. N. K. McKilliam (London)
Cecil T. Mitchell (Johannesburg).
A. C. Payne (London).
R. T. Perry (Vancouver).
Ernest Rose (Rhodesia).
C. D. Rutter (Wrexham).
J. B. Sanders (Crawley).
C. F. Stevens (London).
D. G. Tanner (Polegate).
J. J. Taylor (Darlington).
O. M. Thorpe (Chiswick).
T. G. Williams (Liverpool).

STUDENTS.

A. C. Bedington (Newquay).
H. Fyvie (Pretoria).
W. M. N. Haigh (Baildon).
Arthur Oates (South Shields).
W. G. Parkin (Hampstead).
C. H. Roberts (London).
J. R. Thomas (Colchester).
S. E. Urwin (Birmingham).
R. C. Vander Schyff (Pretoria).

Professional Conduct and Practice.

In order to place on record the considerations which govern the conduct of honourable architects and the customs accepted and observed by the architectural profession, the Council of the Royal Institute of British Architects declares the practice of architects to be as follows :—

1.—Personal and Inter-Professional Obligations.

1. The architect is both an artist and a technician. He designs the construction, the internal and external proportions, arrangements, decoration and accessories of buildings, directs their execution and regulates the expenditure upon them.

2. The profession of architecture is liberal and uncommercial. It is incompatible with the business of a contractor, manufacturer, dealer in (or agent for) materials used in buildings, or of an auctioneer or house agent.

3. An architect is remunerated solely by his fees, and is debarred from any other source of profit in connection with the works and duties entrusted to him.

4. An architect who owns, or has a commercial interest in, any material, device or invention used in building informs his client thereof and obtains his sanction before permitting it to be used in works executed under his direction.

5. An architect does not act as a tradesman or broker ; and accepts no business which involves his giving or receiving discounts or commissions.

6. An architect does not publicly advertise, nor offers his services, by means of circulars or other means of publicity employed in trade and commerce. But he may publish illustrations or descriptions of his work, since these contribute to the common fund of knowledge. He may exhibit his name on buildings in course of execution (providing it is done in an unostentatious manner) and may sign them when completed in a way similar to that adopted by sculptors of repute.

7. An architect declines to obtain work or clients by means of presents, commissions, reductions of his fees, or inducements to agents and subordinates. He refuses all secret dealings with regard to a client or a prospective client.

8. He abstains from seeking in any way the clients of another architect or the appointments held by him. Should he be called upon to accept such clients or appointments by reason of the death, retirement, or rightful termination of the employment of another architect, he considers himself the guardian of the honour and interests of his predecessor.

9. An architect recognises the professional standing of his brother architects, and admits the right to that title of all who honourably exercise the profession. He is careful to observe towards them the courteous consideration due from one artist to another.

10. The copyright of an architect's design is the property of the author, and is scrupulously respected by other architects. His knowledge and experience should nevertheless be always at the service of his profession.

11. When an architect employs other architects as draughtsmen or assistants he gives them his aid and counsel and treats them with the consideration proper to members of the profession.

2.—Obligations Towards Clients.

12. The architect devotes his whole ability to protecting the just interests of his clients. He uses all his knowledge, skill, and experience in designing the buildings entrusted to him, directing their execution, regulating the expenditure upon them, and giving his opinion and advice.

13. But he does not lend himself, even at his clients' request, to proceedings calculated to infringe the rights of others, nor undertake operations which appear to him likely to injure his reputation, to compromise others, or to lead to accidents. In such cases he intimates to his clients that he finds himself unable to carry out their instructions.

14. He also notifies his clients when their alterations to proposed works are likely to increase the cost thereof.

15. An architect is remunerated by his clients (and by them alone) by means of fees, under the conditions of engagement stated in the scale of professional charges authorised by the Royal Institute of British Architects. He accepts no remuneration or payment of any kind whatever from builders, merchants and buyers or vendors of land or property, under contract with his clients unless with their full knowledge and approval.*

16. In connection with current repairs, administration, and other matters in which charges are made for time and services rendered, the architect usually delivers to his clients periodical accounts of his fees. For new works and for important alterations to or renovations of existing buildings, he receives interim payments on account of his fees as laid down in the scale of professional charges above mentioned.

17. An architect declines judicial functions in a case in which he has already expressed an opinion on the subject of the dispute. When he is nominated as an assessor or arbitrator he ceases to represent his clients and acts impartially.

3.—Obligations Towards Contractors and Operatives.

18. An architect exerts his personal influence to establish harmony, cordiality and good faith between all those engaged upon his works. In so far as is compatible with his duty to his clients, he endeavours to save expense to the contractors and labour to the operatives, encourages them to take an interest in the work, and receives with courtesy their technical suggestions for its improvement.

19. An architect interprets the conditions of a contract with impartial fairness as between his client and the contractor. He supplies the contractor with clear instructions, and informs him of his intentions by means of drawings, or otherwise, at as early a stage of the works as possible in order that the contractor may make favourable arrangements for their execution.

20. An architect does not permit the insertion of any clause in tenders, bills of quantities, or other contract documents which provides for payment to be made to him by the contractor, whatever may be the consideration, unless with the full knowledge and approval of his client.

21. An architect does not accept any discount, gift, or business commission from contractors and tradesmen, whether employed upon his works or not.

22. Unless specially so requested by his clients, he does not undertake the payment of contractors.

23. Should an architect have occasion to reprove a contractor or foreman, he does so in such a way as not to impair their authority with the operatives.

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* In certain districts it is an admitted practice for Architects who take out the quantities themselves to be paid for them through the builder.

We presume the declaration of the R.I.B.A. Council is intended for the instruction of the general public on the question of professional ethics, rather than for the information of architects, who are presumed to be aware of their obligations to all concerned. Their clients, on the contrary, are very frequently in the dark and require guidance as to the functions and obligations of an architect. Therefore, we hope that the publication of the declaration will not be confined to the R.I.B.A. Kalendar. We should like to overhear the personal observations of some contractors and operatives on Part III of the declaration, and in particular, on Clause 23 thereof.—*Ed.*

Professional Ethics.

The following letters from Mr. A. Haynes Johnson, M.S.A., of Winchester, were published in the *Hampshire Observer* and in other local newspapers on May 14th and August 20th, 1920. They relate to an enquiry held by the Council of The Society of Architects under Article 23 of the Articles of Association, and give the main facts of the case and the chief reasons of the Council for their finding :—

SIR,

It has been pointed out to me, that, owing to the publicity given in your columns to my appointments as architect to the Winchester and Hursley Rural District Councils for their Housing Schemes, stating the amount of my remuneration in connection therewith, that an idea has gone abroad that I am in the habit of quoting fees less than the scale permitted by The Society of Architects, of which I am a Member.

I desire to state that in the Winchester case special circumstances existed, and I was not in competition with other architects; and, further, that in deference to the rules of the Society, the terms of my appointment are now being reconsidered.

With regard to the Hursley case, the District Council made it apparent to me that in their opinion architects' fees should be quoted at a flat rate per house, and I acted on their suggestion, quoting a flat rate that worked out somewhat less than the Society's scale of fees would justify.

The whole matter is now the subject of an enquiry by the Council of The Society of Architects, and I desire to state that without any question the action taken by me was a breach of the rules of ethics governing their Members, a fact which I lost sight of when before the District Council.

Winchester, *May* 14*th*, 1920. (*Signed*) A. HAYNES JOHNSON.

SIR,

You were good enough to publish a letter from me dated May 14th last, in which I referred to the question of my appointment as architect to the Winchester and Hursley Rural District Councils for their Housing Schemes and to my remuneration in connection therewith, in which I pointed out that an idea had gone abroad that I was in the habit of quoting fees less than the scale permitted by The Society of Architects. I also mentioned that the whole matter was the subject of an enquiry by the Council of The Society of Architects, and I stated that without any question, my action in accepting less than The Society of Architect's scale of fees was a breach of the rules of ethics that govern their Members.

The decision of the Council of the Society on the enquiry into the circumstances of the matter is that I be reprimanded, but they feel that the leniency of their finding may be misinterpreted unless the main facts of the case and the reasons for the decisions are given publicity.

The main facts of the case, without going into detail, are that for reasons partly explained in my letter of May 14th, and partly through my anxiety to re-establish myself in practice after a term of military service, I was induced to accept fees less than those payable to Members of the Society.

The reasons of the Council of the Society for their lenient finding in this matter, which they regard as a serious breach of professional etiquette, are the plea for leniency urged upon them by the Member who complained of my action, and the circumstances in which I find myself placed on resuming my practice, and for these reasons they do not resort to expulsion or suspension.

Winchester, *August* 20*th*, 1920. (*Signed*) A. HAYNES JOHNSON.

The Distribution of the Arts.

*By G. W. Nicolay, M.S.A.

The arts of the most ancient peoples, at which a glance has been taken, directed particularly to their most remarkable works in Assyria and Egypt, were not confined to those countries or even to their immediate neighbours ; but the works of the Canaanites, Hittites and Chaldeans being added, what may be called the central group is complete ; and containing in its accumulated methods all the arts both principal and contributary necessary for such climates as are found in open countries in the tropical zone.

If these peoples had been as noticeable for clear acute thinking and well-balanced and orderly minds, their arts would no doubt have passed to the surrounding countries, being simply modified by the various necessities and aspirations encountered. But that appears not to have been the case, and this is all the more remarkable because the means of distribution was already established by the Phoenicians on their western seaboard particularly and in many other directions.

The distribution of the arts followed a very similar method to that distributing mankind. The links which bound the known factors in the process to the unknown factors are lost, and may never be recovered, but something of the tides and eddies, the expansions and contractions of the general process is traceable and very interesting.

Beyond the limits of the most ancient peoples who have left monuments of any great extent that have remained to us, among which presently to be briefly noticed, were the Peluggi ; there were many who built with perishable material, and on a restricted scale, whose traditions have come down to us, not by long-lasting monuments, but by the continual use of the same methods handed down by successive similarly constructed buildings. The buildings of wood, thatch and clay have been noticed.

So far we have been occupied with the works of the Hamitic and Semitic peoples. The coloured peoples, dark or yellow, have not been noticed, neither have the more northern Japhetic Aryas except as primitive builders in high lands. But these peoples in successive migration overrun the neighbouring countries which afforded space for their excessive population or attracted them by their wealth or fertility ; settling here and there and mingling with the conquered natives or pushing on to fresh conquests and still further and less-known lands.

At the eastern extremity of the Western Sea (the Mediterranean) the ancient Phoenician people established themselves, not entirely forsaking their previous and probably original settlement on the islands at the western seaboard of the Persian Gulf, but making the new settlement principal and their seat of Government. They were not a numerous people nor warlike, but almost entirely given up to trade, in which pursuit they traversed all the then known parts of the world, both by sea and land.

At the time when Tiglath Pileser, the warrior king of Assyria, was waging successful war against the peoples on his north and north-west frontiers, the records of which introduce us to the already fully developed ravenous cruelty of the servants of Asshur, the peaceful Phoenicians were pushing their trade in Cornwall and the Channel Islands ; providing their people with the tin necessary for making bronze. The scarcity of tin with them, though copper was plentiful enough, not only induced them to cross Europe from south-east to north-west, but to brave the Atlantic through

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* *From "Building," the Journal of the A.T.A. and N.I.A., South Africa.*

the Strait of Gibraltar past their station of Grades (Cadiz) in the land of Tarshiole (Spain) and carry on regular commerce by sea, at a time long before the dawn of Greek art.

They were sun and fire worshippers, and so were those who erected the vast open-air temple at Stonehenge, and many other similar monuments. We may imagine them visiting such places, both in their trans-continental journeys and sea voyages, at a time when these monuments were perfect, and no doubt being co-religionists and able to join in the ceremonies they secured safe trading facilities and friendly welcome.

These people traversed in their ships all seas they had access to, passing through the Grecian Archipelago and no doubt searching it carefully for trading purposes, proceeded through the Dardanelles into the Black Sea, skirted the whole littoral of the Mediterranean, found their way to Britain, as has been said, and even, though by stress of weather, reached an island in the Atlantic, which has been identified as Madeira. Eastward they passed the limits of the Persian Gulf and probably reached India. They traded with Egypt, both by the Mediterranean and Red Seas, and with their usual enterprise, proceeded along the coast of Africa down to Somali Land and possibly, as has been suggested, to Rhodesia. It seems, then, that as navigators they were supreme above all, except those of modern times.

They appear to have been the first to establish regular sea routes, with properly supported stations, and it is noticeable that they kept strictly to their trade instincts, and for a very long period showed no signs of a desire to settle anywhere by means of force ; seemingly content to serve their fellow-men without a thought of subjugating them for a space exceeding a thousand years. They must have been distributors of all the small objects of art, household furniture and utensils, statuettes, jewellery, painted panels perhaps, and textiles, of which those dyed with their famous purple and wrought with their embroidery hardly less valued were in all the palaces of the countries surrounding them.

We humans are a little more steady now. We do not fight a country to submission, then slaughter all who appear restive and march off " the remainder " to serve any useful purpose they may be capable of, in a strange land. We do not after war is over as a further condition of peace to the very land itself make it a waste place where no civilised man can live ! In those far-off times, when people, nevertheless, lived, loved and laughed, ate, drank and danced, much as we do ; that was the usual order, but the savagery of it seems to have principally developed in the countries lying between the Mediterranean Sea on the West and the mountains beyond the Tigris on the East, the mountains bounding Armenia and Media on the North and Arabia on the South ; and this district was for ages the theatre of almost continual war of the most repulsive kind conceivable.

But our present interest is in the distribution of the arts of these remote peoples. Wherever a nation was removed by its new masters, its mournful procession was accompanied by the transport of all its valuables ; so that its artistic productions, if it had any, accompanied the artists into their new habitation ; both the one and the other for the use of their new masters.

Here we have another method of distribution not often contemplated, but producing later the mixed aimless architecture of the Persians, which was no development far less an original type, but a somewhat clumsy agglomerate of all sorts and kinds —but they excelled in glazed and painted clay productions, and have kept faith with them to the present day.

Another distribution was taking place in consequence of the migration of the Aryas, a people of greater natural mentality and fine sense and love of beauty, comely in person and free in thought and action, conquering, but not conquered, mingling with other people here and there, and settling with them ; in other places passing on to countries more suited to their habits and desires. The Pelasgic were probably an early offshoot and left monuments of great interest in Greece, those cyclopean structures so admirably built though showing no particular indications of artistic aim. Their age is unknown, but they were built long before the time when we came to form historical data with the first Olympiad B.C. 776. The Donians and Ionians followed, and in course of time supplanted the Pelasgi and became the initiators of a new treatment of the elements from which architecture has and will be developed. There was no copying of existing "examples," no following of precedent ; but trusting to their own keen intellects and well-balanced healthy sense in 350 years were able to produce the finest sculpture and—within its limitations—perhaps the most perfect work of architecture ever done by man :—Phidias and the Parthenon. Both likely to remain as long as their memory lasts without a rival.

It is probable that in its internal decoration, in its furnishings, and the garments of its officials, and even in its sculpture, the arts in their less prominent features which had been distributed by war and migration were well-known to them. The artists working for one set of masters here and another set there, according as they were free or in captivity, and carrying, of course, their knowledge, experience and artistic faculties with them ; those escaping captivity passing from the ruins of their work and the wreck of their country to and (if it could be found) friendly people ; traversed the world east to west and north to south, as the warp and woof traverse a piece of woven fabric. The great statue within the Parthenon was a composite of metals and ivory, a method of work which does not appear in former times ; but statues of brass existed probably of equal size.

And the accessories were ready and the cutting and handling of stone, marble and granite were well understood, and the carving of them, even masterly figure carving was brought to a high standard ages before, but that seems to have passed into the purely imitative stage before the highest excellence was reached. And it was locked up, so to say, in Egypt ; for those who copied Egyptian work, like most copyists, used the worst and left the best behind.

The Greeks, however, do not betray any knowledge of all this. Their columns were cylinders delicately wrought with what we know as an entasis, and other details treated with the same exceptional and individual refinement, its sculpture so nobly set in the chosen positions as to seem part of the realisation of superhuman idealism. In the distant view the Parthenon forms a dainty crown for the Athenian Acropolis. Nearer, a very majestic pile of light and shade and ethereal colour. If the tide took much time to reach that high water mark, if the flow was long, the ebb was swift enough. Three hundred and fifty years to produce ; and in one hundred gone !

The Society of Architects Lodge of Freemasons.

There will be an Emergency Meeting on *Tuesday*, October 19th, and a Regular Meeting (Installation) on *Wednesday*, November 10th, at the Holborn Restaurant.

The Lodge is always pleased to see visiting "members" from other Lodges, and as some potential visitors have felt a diffidence in attending when not in evening dress, it should be made clear that they are equally welcome in morning dress.

The Airman-Surveyor.

A further opening for Surveyors is suggested by an article in the *Observer,* in the course of which it is stated that at the 1916 meeting of the British Association the president of the section devoted to geography gave some statistics which showed that of the entire land area of the earth, estimated at 60,000,000 square miles, rather less than 9,000,000 square miles had been accurately mapped. More or less reliable non-topographical surveys had covered another 5,000,000 square miles, 37,500,000 square miles had been roughly mapped from route traverses or sketches, and the remainder—about 8,300,000 square miles—was entirely unsurveyed and unmapped.

Hitherto accurate maps have only been possible as a result of long and costly triangulations by means of the theodolite, and in many parts of the earth it has been impossible to carry out this work. But the experience gained during the war has shown that very reliable maps of the earth can be obtained by means of photographs taken from aeroplanes, and steps are now being taken to carry out aerial surveys of unexplored regions and also of our vast Dominions, such as Canada and Australia, of which accurate maps exist of only limited areas. In Australasia the area awaiting detailed surveys aggregates nearly 3,000,000 square miles, in Africa at least 11,000,000 square miles, in North and South America 12,000,000 square miles, in Asia 14,000,000 square miles, and even in Europe—chiefly in the Balkans, Scandinavia and Spain—350,000 square miles are only known by very approximate maps based on rough travers.

The Toil of Triangulation.

Just before the war the German Government projected a survey of South-West Africa by photoperspectography by means of airships. The cost of making a complete map of the colony on a scale of 1-10,000 was given as £2,000,000, and the time occupied was estimated at twelve years. That was a big improvement on the triangulation method, but the advances made during the war have been so remarkable that, except in mountainous country—for which at present aerial photographs are useless—before long all national surveys will be carried out from the air. For the preparation of large-scale maps of extreme accuracy, of course, the services of the trained land surveyor will still be necessary, but the very arduous work of carrying elaborate networks of triangles over large areas will be dispensed with, the relative positions of prominent physical features or artificial landmarks being obtained from comparison of the aerial photographs.

A well-known British firm of aeroplane makers is now executing orders for survey machines destined for Canada and India. In the latter case they will be used for mapping the comparatively unknown territory contiguous to the frontier, part of which has already been surveyed by members of the Indian Survey under very arduous conditions. Very accurate maps exist of India proper, especially of the northern parts, the survey of which by the Indian Survey has not been excelled by that of any European country.

In all probability the airman-surveyor will enable the partial triangulations of the great African continent to be linked up before very long. Before the war chains of triangles were being slowly and laboriously extended south from Egypt, north from Rhodesia, and east and west from the German and British colonies in Central Africa. The backbone, so to speak, of this African survey is the thirtieth meridian of longitude east from Greenwich, which runs through Africa from near

Port Grosvenor, Natal, to the Mediterranean a little west of Cairo. The intention is to carry it across the Mediterranean and link it on to the great European meridional arc which many years ago Russian geologists surveyed from Odessa to the North Cape, thus giving an accurately-surveyed and measured arc extending over more than 7,000 miles of the earth's surface. Towards the cost of this project the late Cecil Rhodes bequeathed £40,000.

LONGITUDE BY WIRELESS.

Wireless telegraphy is also being pressed into the service of the map-maker. The essence of the determination of longitude is the accurate determination of the time difference between two places, Greenwich being the almost universal zero. Before the days of the electric telegraph this was sometimes accomplished by carrying chronometers backwards and forwards between the two places, a very slow process. The invention of the cable simplified this, but not every point on the earth is at the end of a cable line. It is possible, however, to send wireless time-signals almost anywhere, and as these messages travel practically instantaneously they afford an ideal method of deciding the time difference, and thus the difference of longitude. Transatlantic longitudes, between Europe and America, have already been remeasured with remarkable results by signals sent between Italy, France, and the United States.

Restriction on Output in the Building Trade.

The Council of the N.F.B.T.E. in their half-yearly report state that the adoption of the 44-hour week had not resulted in the promised increase of output which was put forward by the operatives as being assured if shortened hours were adopted. It was also stated that if the Ministry of Health's proposal to compel the trade, by legislation, to pay a weekly wage as a guarantee against loss of time through bad weather or delay in receiving material, etc., in connection with State-aided Housing Contracts became effective, it would extend to building work of all kinds and would have the result (*inter alia*) of leading to further restriction or diminution of output, it being the experience of most who have tried the payment for lost time that every advantage has been taken of diminishing the intervals in which work is possible.

M.O.H. Housing Department.

Sir James Carmichael, K.B.E., Director-General of Housing has, for reasons of health, tendered his resignation, which the Minister of Health has accepted, with great regret. Consequent upon the retirement of Sir James Carmichael, the housing division of the Ministry has been reorganised and placed under the charge of Mr. E. R. Forber, C.B.E., an assistant-secretary of the Ministry. Mr. Forber will be assisted by Mr. R. B. Cross, O.B.E., assistant-secretary in charge of the administrative branches; Mr. Walker Smith, director of housing, and Mr. Stephen Easten, director of production. The work in connection with town planning and unhealthy areas will be under a separate assistant-secretary—namely, Mr. I. G. Gibbon, C.B.E., who will also continue temporarily to be in charge of the special branch which deals with housing in London.

The Society's War Memorial Tablet.

A Tablet containing the names of Members of the Society who fell in the late war is about to be erected at the Headquarters in Bedford Square. It is desired that the Roll should be complete, and Members who have personal knowledge of the death of any of their fellow members while on active service will greatly oblige by sending particulars to the Secretary.

The Unity of the Profession.

The questions to be dealt with in considering proposals to promote the Unity of the Profession were well defined by Mr. Simpson as falling under the two heads of "A," amalgamation, and "B," federation. It is as yet far too early to say which view will prevail, and we can only "wait and see," while having our own strong convictions that a complete amalgamation would prove to be the better plan. We believe that the profession is too small to make it necessary to resort to federation, although it is perfectly natural that the members of a body like The Society of Architects which has shown so many signs of vitality should be disinclined to accept a solution which would destroy their individual identity. But the effect of the other plan would be to considerably increase expense, while the separate bodies would either become secondary ones to the joint council to be created, or that body—the only means of "unity"—would become a shadowy House of Lords without much power or meaning, and we should be much as we were before. But discussion on the subject will not languish for a long time to come, as the negotiations may well extend over a period of a couple of years.—*The Architect.*

If, as seems not improbable, Federation rather than Amalgamation should prove the goal of our own efforts after Unity, some such representative body would go to Parliament with much more success for Registration than have attended past efforts. —*Building News.*

A Sporting Offer.

The following letter from Mr. R. Langton Cole, F.R.I.B.A., appeared in *The Builder* of August 6th.

If any Members of the Society who are prepared to accept Mr. Cole's offer and hospitality will communicate with the Secretary, he will endeavour to arrange a match

SIR,

Joint Sports.

I am very keen on unity, and if sport will assist, I would do my part in the only game I know. I should be willing to meet any Member of The Society of Architects personally, or to arrange a team of four, to shoot at Bisley, at 500 yards with the Service rifle, under N.R.A. conditions, on a Saturday in September or October; 5 rounds practice, 10 rounds to count.

I would lunch the other side at the Middlesex Hut.

R. LANGTON COLE.

23, Throgmorton Street, E.C.2.

Mainly About Members.

The club house of the London Flying Club, Hendon, contains, as a special feature a ballroom and concert hall, equipped with a stage, and large enough to seat about 2,000 people. Over fifty bedrooms, electrically lighted, with exchange telephones, and each fitted with hot and cold water and steam heating, are available for gentlemen members. The club is furnished with a library containing a complete set of works on aeronautics. The kitchens and offices are exceptionally commodious and up-to-date, and provide all facilities for catering. There is a fine terrace, facing the club flying ground, and overlooking a number of *en tout cas* hard tennis courts. The private club aerodrome comprises about eighty acres.

The building itself is of reinforced concrete, with red brick outer walls and granolithic facings. The roof is of Broseley tiles and the rain-water heads are castings from an old Georgian rain-water head dated 1796.

The building was carried out from the designs of Mr. H. W. Matthews.

Mr. C. O. Pugh-Jones, of Cardiff, a Student of the Society, has been successful in passing in every subject at the Inter-B.Sc. Examination.

The President of the Society, Mr. E. J. Sadgrove, has been elected Vice-Chairman of the Unification Committee charged with the duty of preparing a scheme for the Unification and Registration of Architects.

Extensions are being made to the London School of Economics, Clare Market, by MESSRS. TREHEARNE AND NORMAN, of Lincoln's Inn Fields. The architects have had a difficult problem to solve owing to the restrictions as to light and the necessity for linking up two new blocks with existing buildings. The additions are being erected in accordance with the most modern principles, and so the new scheme will increase the class and lecture accommodation from 5,000 to 29,500 square feet. Nine other new buildings are being erected in Aldwych and Kingsway districts by the same architects.

The British Builder for March contains illustrations of the lay-out and house plans for the development of the Kingsbury Garden Village, which MR. E. J. W. HIDER, architect, of Southampton Row, is carrying out for the Metropolitan Railway County Estates, Ltd.

Members of the Society are strongly in evidence on the governing body of the Institute of Arbitrators. The President is Mr. E. C. P. Monson, P.P.S.A. Prof. Adams is a Past President, Sir C. T. Ruthen, Messrs. E. J. Sadgrove, A. Alban H. Scott and Percy B. Tubbs are on the Council, and Sir Henry Tanner is an Hon. Member of the Council.

Over 600 drawings were submitted in the Parsons' Colour Scheme Competition, and the Judges have awarded the first prize of £100 to Mr. H. A. Rees, c/o. MR. D. J. THOMAS, of Blackwood, Mon., and the second prize of £30 to MR. MATT STEELE, of Bo'ness.

Capt. G. Ll. Evans has been elected a Vice-President of the A. and S.A.P. Union, and Mr. C. F. Overy, Hon. Organising Secretary, and the following Members have been elected on the Central Executive Committee: Messrs. R. G. Ll. Evans, J. B. Hector, A. W. Mather and H. B. Newbold. Mr. Hector is also the Registrar of the Union. Mr. J. B. Miller is the Secretary of the Gloucester and District Branch. Mr. A. W. Mather and Mr. A. J. Sparrow are on the Committee of Visitors of the Design Club.

Three Members, Messrs. M. A. Piercy, Harry Morse and Thomas Evans were bracketed with two other competitors for the second place in the Chatham Housing Lay-out Competition, and their lay-outs were commended by the referee.

Alderman G. A. Eastwood, of Chesterfield, has presented a site and made a gift of £25,000 towards the cost of building a technical college in the town at an estimated total cost of £100,000. Plans prepared by Mr. P. B. Houfton provide for a college to be erected in four sections—a main block, a north wing, a south wing, and lecture hall at the rear.

Lieutenant W. H. Adams, R.E., chief assistant engineer and surveyor to the Romford Urban Council, has been appointed chief assistant surveyor and water engineer to the Leek Urban Council at a salary of £350.

In the June issue of *Building* (Johannesburg) there is reproduced an article by Miss Annie Hall on the training of women as architects.

The Victoria Falls Hotel was built during the war period, and much of its interest lies in the remote nature of the locality in which it was built. Far distant from any town, many problems of labour, transport and material had to be solved, and the romantic nature of the site facing the great natural gorge of the Falls, adds a distinction to the building which few others can possess.

The building is flat-roofed, fire-resisting, skeleton-framed construction in reinforce concrete, the panels being filled in externally with brickwork. The whole is finished in plaster and coloured cream white. Internally, the building is divided up with "Hyrib" partitions, plastered, and has a granolithic floor.

All windows and French casements are steel-framed and inter-communication doors are used throughout.

The necessity for large airy reception and bedrooms with continual through draught and the need of ample verandah accommodation, suitable for a tropical climate, governed the architectural design which is a free treatment of such Portuguese work as one sees on the east coast of Africa.

In the design of the building the architect, Mr. Frank Scott, was assisted by Mr. H. E. Kirkby.

Mr. Herbert Freyberg, F.S.I., has been joined in partnership by one of his old pupils, Mr. G. S. Valentin, M.S.A., who was in practice at 18, Charing Cross Road, before the War. The firm have taken a set of professional chambers at 8, Grays Inn Square, W.C.2., and eventually they will transfer the whole of their work to that address, which has been carried on for so long at 24, Cromwell Place, S.W.7.

Mr. C. Day having resigned the post of borough surveyor of Chatham after forty-three years' service, the town council has appointed Mr. R. L. Honey, the deputy borough surveyor, as borough surveyor for twelve months, at an inclusive salary of £450 per annum (exclusive of housing fees paid under Ministry of Health Memorandum No. 2), the matter of the making of a permanent appointment to be considered on the expiration of this period. Mr. Honey is a Fellow of the Surveyors' Institution, a member of the Institution of Municipal and County Engineers, a member of the Society of Architects, and a member of the Royal Sanitary Institute.

The Architect illustrates a block of timber-frame houses to be erected at Tankersley, near Barnsley, for the Wharncliffe Silkstone Colliery Co., Ltd.

This is the first group of timber-frame houses to be erected in this district, and forms part of a large scheme for the erection of over 300 houses for this Colliery Company. The group of houses illustrated forms the central block in a village green, and will be constructed with timber-frame skeletons upon brick foundations, with brick party walls and flues. The exterior of the timber skeleton will be covered with Bishopric, cement plastered and rough-casted on the outside face. The interior will be lined with $\frac{1}{2}$-inch asbestos sheeting.

The architects for the whole scheme are Messrs. Sir Charles T. Ruthen and Co.

The Glory Paper Mills, at Wooburn Green, for Messrs. Wiggins, Teape and Co., Ltd., are now being erected in reinforced concrete. One of the main problems that had to be tackled was to design and construct a roof with no projecting portions from which condensed water might drop or on which dust could accumulate, and at the same time to produce a lofty and well-lighted building. In the air-drying houses, for instance, a very high-grade paper is dried, and any moisture or dust falling on it while it is being dried is the very last thing to be desired.

The main roof supports are arch ribs in reinforced concrete, which are cast *in situ* and carry pre-cast purlins of " T " section, to the top and bottom of which are fixed Hy-Rib sheets, which in turn form the reinforcement for the ceiling and outer covering. The Hy-Rib is in two layers, giving a double roof with an insulating air space between.

The use of arch ribs led to a further problem, because owing to the complete rearrangement of one of the houses after the lower portions of the columns were constructed the floor, instead of being at one level between the ribs, had a drop of 8 ft. at the centre, and this necessitated special beams under the higher floor to carry the ties. In another instance (the power house), where a similar roof was employed for architectural reasons, to allow for the installation of turbines at a later date the tie for one arch had to be entirely omitted, the thrust being taken by a horizontal girder anchored at the next arch and tied into the end wall. In this case, also, the alteration from the original plans was made after the lower portions of the columns were in position, and it was then impracticable to place the arch tie at ground level. The architect is Mr. E. C. P. Monson, P.P.S.A., of Finsbury Pavement House, E.C.2.

We regret to announce the death on June 15th, 1920, of EDWIN THOMAS HOWARD (Member), of Wellington, Somerset.

Mr. Thomas Howard, who was 75 years of age, had been a Member of the Society for 25 years, and was in practice for 50 years as an architect and surveyor. His executed work included banks, offices, warehouses, town halls and schools, as well as ecclesiastical and domestic buildings.

Intimation has recently been received of the death in a motor-cycle accident on May 20th last, of WILLIAM JOHN HADLEY, of Alltwen, Pontardawe, Glamorgan. The late Member, who was only 29 years of age, was articled to Mr. A. J. Williams, of Llandilo, and passed the Society's qualifying examination for Membership in 1912.

The Examinations.

The Society's Examination Scheme and Syllabus have been revised and new regulations and conditions have been drafted.

As soon as the details are settled the new syllabus will be issued, and it is hoped that the examinations may be resumed in October.

Transfers to the Fellowship Class.

Members of the Society elected previously to May 1st, 1920, who are over thirty years of age and have been engaged as Principals in the practice of Architecture for at least ten consecutive years, and are still so practising, or who are Fellows of the R.I.B.A., are eligible to make an application for transfer to the Fellowship class. Members elected since May 1st, 1920, have a similar privilege, but cannot exercise it for twelve months from the date of their election.

Candidates may make application on the prescribed form to be obtained from the Secretary, and must submit such further evidence of qualifications by way of drawings and photographs and other testimonies of professional standing and ability as the Council may in each case require.

The Annual Subscription of Fellows is £4 4s., and a remittance for this amount, returnable in the event of non-election must accompany the application. Members of the Society on election as Fellows do not pay the Entrance Fee of that class.

The first Annual Subscription of all Fellows elected before October 31st, 1920, will be credited to them to October 31st, 1921, so that Members transferred before the first-named date will not pay any increased subscription for the remainder of the present financial year, which is covered by their current membership subscription. The latter, if not already paid, must be discharged before an application for transfer can be considered by the Council. The Membership Committee will not meet during August or September and any applications deposited in the meantime will be dealt with when the Committee reassembles.

The Membership Class.

Members who are not at present eligible to make an application for transfer to Fellowship may do so when they acquire the requisite qualifications.

The Annual Subscription of Members is now £3 3s., as from November 1st, 1920.

New Membership Certificates.

The new Certificates for Fellowship, Membership and Licentiateship of the Society have been approved by the Council, and will be issued to all Members (in any class), elected on and after July 15th, 1920. Other members wishing to exchange their Membership Certificates for new ones should return the originals to the Secretary with a remittance of five shillings, when a new Certificate bearing the original date of election will be issued in exchange in due course.

Members who prefer to retain their present Certificates are under no obligation to change them.

Architectural Scholarship.

The Architectural Scholarship, 1920, of the value of £10, is offered for Measured Drawings, and the Competition is confined to Licentiates and Students of the Society, who have paid their fees for the current year. The assessors are Messrs. Sir Charles T. Ruthen, O.B.E., Percy B. Tubbs and Professor Adams.

Candidates are required to submit at least three and not more than four sheets of Measured Drawings and Details, of some building of historic interest.

The Drawings are to be prepared between November 1st, 1919 and September 30th, 1920, and must be endorsed, "The Society of Architects' Architectural Scholarship, 1920," and delivered not later than 6 p.m., on October 1st, 1920, at the Society's offices, 28, Bedford Square, W.C.1.

The Scholarship will be disbursed by the Council on behalf of the holder, subject to their approval of the manner in which the Candidate proposes to utilise the Scholarship, or alternatively to the Candidate agreeing to such scheme as the Council may decide upon.

Should the scheme not call for the payment of so much as Ten Pounds (£10) the holder may receive the value of the balance in books or instruments.

The successful Candidate may be required, before the award is confirmed, to produce to the Council evidence as to age.

Students' Competitions.

GENERAL REGULATIONS.

(1) Drawings must be executed on white paper, imperial size and mounted on strainers or boards, and bear no motto or other mark of identification.

(2) Essays must be written (preferably typewritten), on foolscap single sheets one side only, and pinned at top left hand corner, and bear no mark of identification.

(3) Drawings and Essays must have attached to them a plain sealed envelope containing a declaration signed by the Candidate that the work is his unaided effort, and has been executed within the time allotted.

(4) Drawings and Essays must be delivered carriage paid at the Society's offices, 28, Bedford Square, W.C.1., not later than 6 p.m., on the day on which the Competition closes, together with any original sketches and notes.

(5) Drawings and Essays will be numbered as received and a corresponding number will be placed upon the Candidates' sealed envelope, which will not be opened until the Competition has been decided.

(6) The Society will not be responsible for the loss of or damage to any drawing or document submitted by Competitors, though every reasonable care will be taken of them.

(7) The Council reserves the right of exhibiting and/or reproducing any of the drawings or essays, and their decision on any point arising out of the Competitions is final and binding on the Competitors.

(8) A Candidate who does not adhere to the conditions and regulations in every particular will be disqualified.

(9) A Scholarship or Studentship may only be held once by the same person.

Quarterly Competitions.

These Competitions are open to Licentiates and Students of the Society who are under 23 years of age on the day the respective entries close, viz., January 31st, April 30th, July 31st and October 31st ; and who have paid their subscriptions for the current year. Ex-Service Students may, if necessary, deduct the time spent in H.M. Forces, between 1914 and 1919 from their present age.

The First Prize in each quarterly competition is of the value of £3 3s., with a Second Prize of the value of £2 2s., if more than ten Students compete. The Council reserves the right to vary or withhold the award, which will only be made if the work is, in their opinion, of sufficient merit. Successful competitors may be required before the award is confirmed to produce evidence to the Council as to age.

Quarter Ending, October 31st, 1920, Measured Drawings, consisting of one sheet to one-eighth scale, one sheet to half-inch scale, and one sheet of enlarged details. They must be delivered carriage paid, at the Society's offices, not later than 6 p.m. on Monday, November 1st, together with the original sketches and notes.

Assessors : MESSRS. PERCY B. TUBBS, L. SYLVESTER SULLIVAN, AND HARRY GILL.

Council's Nomination List for the Year 1920-21.

ARTICLE 46.—After the issue of the Council's List, any five Fellows, Members or Licentiates qualified to vote may nominate in writing any other duly qualified person to fill any vacancy subject to their having previously obtained the consent in writing of such person to accept office if elected. The nomination paper, accompanied by such consent, must be delivered to the Secretary not later than the First day of October, and no nomination will be valid if the nominee or any of the nominators are under any liability to the Society. Licentiates as such shall not be entitled to nominate candidates other than Licentiate Candidates for vacancies on the Licentiate representation on the Council.

Office.	Name.	Town.
President	*SIR CHARLES T. RUTHEN, O.B.E.	Swansea
Vice-Presidents (4)	*EDWARD J. PARTRIDGE	Richmond
	*NOEL D. SHEFFIELD	London
	*L. SYLVESTER SULLIVAN	,,
	*ALFRED J. TAYLOR	Bath
Hon. Secretary	*THOMAS WALLIS	London
Hon. Treasurer	*GEORGE H. PAINE	,,
Hon. Librarian	*ELLIS MARSLAND	,,
Council (15 London) 17 Nominations	GEORGE BAINES	,,
	H. S. BARRETT	,,
	*A. BURNETT BROWN	,,
	P. M. DAVSON	,,
	*H. FREYBERG	,,
	*F. HALL-JONES	,,
	W. HUNT	,,
	W. G. INGRAM	,,
	G. BLAIR IMRIE	,,
	*T. STEWART INGLIS, D.S.O.	,,
	*H. C. H. MONSON	,,
	C. F. NORMAN	,,
	*E. J. PARTRIDGE	,,
	*L. S. SULLIVAN	,,
	*A. F. A. TREHEARNE	,,
	T. S. VICKERY	,,
	*G. H. WENYON	,,
	VICTOR WILKINS	,,
(6 Country) 8 Nominations	HARRY BARNES, M.P.	Newcastle
	B. D. CANCELLOR	Winchester
	*P. B. HOUFTON	Chesterfield
	T. TALIESIN REES	Liverpool
	*C. F. SKIPPER	Cambridge
	*A. J. TAYLOR	Bath
	*T. F. TICKNER	Coventry
	G. C. VERNON-INKPEN	Portsmouth

* *Now serving on the Council.*

NOTE.—The names of Licentiate nominees will appear in the final List, together with those nominated by Licentiates (if any) before October 1st, 1920.

Current Competition Conditions.

The Society has filed for reference particulars of the following current Competitions :—

*EARBY, *WAKEFIELD and *WEYMOUTH (War Memorials). LIVERPOOL (Secondary School). BARCELONA (New Club Premises).

Those starred are barred to Members of the Society owing to unsatisfactory conditions.

If this Should Catch the Eye

of any Members who have not contributed to the Society's Victory Scholarship Fund, they are reminded that "bis dat qui cito dat." In other words, a guinea now is worth two next year, but there is no limit, and contributions have varied from five shillings to fifty pounds, while individuals have collected sums of from twenty-five pounds to eighty pounds.

Other Members please note that £1,600 more is required before the end of October.

We acknowledge with many thanks contributions from the following since the issue of the last list :—

MR. THOS. WALLIS, MESSRS. C. F. KEARLEY LTD., W. H. DAVEY AND CO., LTD., F. A. NORRIS AND CO., LOCKERBIE AND WILKINSON, STUARTS GRANOLITHIC CO., LIMMER ASPHALTE CO., RUGUSA ASPHALTE CO., TRUSSED CONCRETE STEEL CO., WAYGOOD-OTIS LTD., MR. J. G. GRAY, MESSRS. RICE AND SON, MR. H. A. COOPER, MR. F. W. CATTERALL, MR. VASCO DE MORAIS PALMEIRO.

The total amount received to date is £423.

Increase of Rent, etc., Act, 1920.

One of the most useful of the memoranda on this subject which we have seen, is one prepared by Mr. Graham Mould, barrister-at-law, at the joint request of the Surveyors' Institution and of the Auctioneers and Estate Agents' Institute. The scope of the Act is explained and a summary given of its chief provisions, such summary being intended for use in conjunction with the full text of the Act, which is printed with notes and cases.

Ordinary and Special General Meetings.

An Ordinary Meeting of The Society of Architects will be held on September 9th for the election of members and other routine business, at 6 p.m., and a Special General Meeting will be held at 28, Bedford Square, W.C.1, on Thursday, October 14th, 1920, at 8 p.m. to receive the report of the Scrutineers on the ballot for Officers and Council, and to transact other business.

The Loan Library.

The Library is closed during September for Stocktaking, and in the meantime no books will be issued on loan. Members who have not returned borrowed books are asked to do so at an early date.

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The Society is not, as a body, responsible for the opinions expressed by individual authors and speakers.

Cotswold Villages.

INDIGENOUS CHARM.

(BY A CORRESPONDENT IN THE *Morning Post.*)

The Cotswold villages are perhaps as distinctive as any in England. Their inaccessibility to some extent accounts for this. Few railways reach them ; here and there a sleepy, unhustling line alone may be seen. Always built of grey freestone, the cottages are roofed for the most part with grey stone slates. Moss and bright yellow rock plants of different varieties cling to each roof, rambling roses clamber over the grey walls, and Madonna lilies and their fiercer sisters, the tiger lilies, trumpet in the front gardens, amid foxgloves and roses. High barns, their grey walls pierced by pigeon holes in the narrow angle of the roof, and thatched steadings straggle delightfully at random down the steep street. And the whole village, with its river, is a harmony of cool greys, browns, greens, and pellucid blue. There is nothing more charming in all broad England.

VALUE OF MATERIAL.

More than half the charm here lies in the fact that the material used in the building of the village is indigenous. The grey stones for the cottages came from that quarry round the corner. The grey stone slates, which diminish in size from gutter to ridge, came from another quarry near by. Time has added the moss and the rock plant, and the villagers' passion for flowers has decked the gardens, but the initial and distinctive tone value of the village is of the soil. The straw for the thatch of the steading grew in a local field. The binding pattern along the thatch—that criss-cross a little above the eaves—is made from the withy which grew along the river bank. There is nothing in the happy construction of this village which is not of the local soil.

In the bigger villages and the towns touched by railways one can readily see how steam has spoiled the countryside. The dry stone dyke is replaced by that modern abomination, barbed wire. The grey roof of cart-shed and barn gives way to an ugly arc of corrugated iron, and the grey stone of the cottage wall is replaced by a modern garish brick, badly burned and by far too large. Banality in its worst aspect is supplied by the railway station, in Chinese-Gothic style, seemingly designed by a civil engineer's apprentice, whose nicely calculated costs and stresses had atrophied his judgment. The blame for defacing the countryside must be laid, one supposes, on the commercialism of the mid-Victorian time. In later days a half-hearted attempt seems to have been made to rescue the charm of the villages. But there still remains a danger even in this period of greater enlightenment. The newest danger lies in the Government's Housing Scheme.

THE HOUSING PROBLEM.

If the charm of rural England is to be preserved the approach to the housing problem must be made thoughtfully as well as quickly. None denies the urgent need of houses throughout the country ; but if the thing that makes England the cosiest country in the world, her home life, is to be retained and fostered, no hustling policy of " any-house-will-do " can serve. The charm of any old-world village in any part of England lies mainly in the fact that the materials used in its construction are indigenous to the district to which it belongs. All along the Weald of Surrey, Hants, Sussex, and Kent, for example, one finds flint, plaster, timber, and bricks from the local clay in the construction of cottage and manor. In parts of Wilts and in a band of about thirty miles wide running up into Norfolk may be traced the use of the same materials. In a band of limestone district running from Dorset and Somerset up through Gloucester to East Yorks, the old houses are of stone. Another band where timber and sandstone prevail runs northward from South Wales to the north of Yorkshire. In the North stretches a wide area of limestone and sandstone.

REGIONAL INDUSTRIES.

In the hurry to build it will perhaps be easier to take bricks and red tiles or blue slates into the Cotswolds than to look about for local grey stone for wall and roof. It may even be quicker for a builder with a stock of stone to put up a stone house among the small mellow bricks of Kent and Surrey. But if hasty expedient is to take place of thoughtful consideration we may as well give up any idea of keeping our England the charming country it is. Great benefit might acrue from a sane solution of the rural housing problem. Village industries might easily be revived. Create the demand for stone slages in the Cotswolds, for " pargetting " in Herts and Cambridgeshire, for thatching, for small bricks in Kent or Surrey, and the chances are that one would find young men asking their fathers to teach them stone-splitting, plastering, thatching, and brick-making throughout the respective districts.

It would be a shame therefore, if in the hurry to supply the needy with houses we allow any blundering local architect or builder to work his will with the amenities of the English countryside. We have men who surely are capable of preserving the charm of regional tradition. There are certainly materials at hand for the expansion of our villages in keeping with the old-world character which gives comfort to mind and body, and appeals to the nation's sense of beauty.

Concrete for Housing Purposes.

Mr. Irving K. Pond, an American architect, recently read a paper before the National Conference on Concrete House Construction of Canada, in which he pointed out that while concrete has its legitimate uses in this connection, its too general employment is to be deprecated.

He summarises his conclusions and arguments as follows :—

Imitations.—Concrete has a character of its own; there is no call to torture it into imitations of stone, wood, bronze, or other material. Details cast in moulds should bear the plastic touch of the modeller and not the chisel marks of the sculptor.

Economy.—Forms suited to the special purpose should be used—forms extravagant of labour and materials should be avoided, and should be employed only where duplication can be accomplished without monotony.

Monotony.—Even a good thing ceases to be a good thing when used in excess, and two concrete houses from the same forms, placed side by side, is an excess—such treatment is permissible only in barracks where men are in uniform and drilled into the same line of thought, act and movement, all individuality being eliminated.

Slabs.—Flat slab roofs may at times and in places be appropriate. A general use would be deadly unless counteracted by features the initial expense of which would more than offset the element of economy which alone would serve to call for a wide prevalence of such roofs.

Monolithic Forms.—This method presents advantages in certain types of structures. The appearance of mass and strength is enhanced by monolithic treatment. Openings and corners can be characteristically and ornamentally treated at slight or no additional expense. Houses pre-cast from monolithic forms and transported as slabs or as units are to be looked upon with suspicion as tending to create types and general monotony.

Blocks as Units.—Concrete blocks laid to be effective as units may perform a legitimate asethetic as well as structural service. Texture and colour can be given them. Their danger lies in exaggerated scale and general uniformity. Stone has the advantage of lending itself to cutting and fitting in length and height without consequent economic waste. The manufacture of concrete blocks should be studied with variety of size as well as appropriate scale in mind. Corners and angles should be true, and crude and rock faced surfaces avoided.

Blocks as Backing for Stucco.—This is a legitimate field for the use of concrete blocks. Scale need not be taken into account; neither need such matters as sharpness of corners and angles of crudity of surface. Uneven chipping where blocks are cut approximately to the desired outline presents no obstacle to the perfect finish. Surfaces should be such as to which the stucco will most readily adhere.

Costs and Permanence.—In a latter from an official of the United States Housing Corporation I find these words :—" We were satisfied that there were certain types which would produce a good practical house at a very moderate cost, but it appeared to us that this could be done only where the same unit was repeated indefinitely, and our belief was that this would produce a deadly monotony."

As to the monotony we have already heard; as to the cost and permanence or durability, let me say that there may be cases where permanent houses would be a drawback in a developing community. There would be very little salvage in a wrecked concrete house, while the wrecking would entail almost as much expense as the constructing. Unless a community is well " zoned," buildings of a too permanent nature are an economic waste even though the initial cost may be the same as for a building of less permanent character. Where, as in many of our communities, change is the order of the day, well-constructed buildings of a more temporary nature are desirable. Buildings of a temporary nature can be "fire stopped," and made safe for occupancy.

Fireproof Character of Concrete Houses.—In the letter above referred to, these words appear:—"We found that the people who were interested in the concrete house were almost without exception trying to build every part of the house in concrete, including porches and all the trim." This would seem to me to indicate a deficient sense of humour on the part of the people referred to, as well as defective vision. I will grant that the designs of many architects who never intended to make a joke of their work are such as to be readily translated into concrete and would not lose in the process; but a concrete man with a sense of fitness, I call it humour, would not design to effect the translation. I must still warn the enthusiastic against excess; excess in imagination as well as excess in material, or some of them may wish to make the door hinges out of concrete after all. Fireproofness, so to speak, and permanence are good qualities, for which it is possible at times to pay too much.

Methods and Means.—How to make the house reasonably fireproof, reasonably durable, reasonably attractive and reasonably economical in cost and in upkeep presents a series of problems for the architect and the concrete expert. As an architect I shall receive the findings of the concrete expert, and will make such applications of the methods and means presented as may suit the particular case. I will even present the case beforehand to the expert—if it is not already covered—and aid him in his solution. I will even ask him now to present types of floors in structures and finish which are durable, economical, and appropriate to a small house. I will ask the same concerning the roofs, high pitched, low pitched and flat.

There are many problems to be solved in connection with the designs, construction and location of the concrete house, and I congratulate the concrete and cement interests that they have enlisted the services of so many serious-minded and enthusiastic men in the quest for the best along these lines. I hope that architects of vision and deep feelings may be called upon to co-operate.

On the Computation of a Lay-Out.

The main purpose of the statistical computation of a lay-out is to determine whether it provides in an economical manner a convenient and practical solution of the problem of arranging roads, houses, other buildings, and open spaces upon the site.

It is not always easy to tell by merely looking at the plan whether a proposed lay-out is really economical in respect of road frontage. Sometimes the roads may appear to be fairly closely built up, but a simple calculation will reveal the fact that the average frontage per house is over 50 ft., and this without any special circumstances, such as difficulty of contour, which might have justified so high a figure. In fact, it is the commonest defect of lay-out plans, which have not first been subject to critical analysis, that they are over-roaded. In many cases existing highways are not made use of for building frontage, while it is of frequent occurrence that in the case of new thoroughfares the junctions are badly arranged, forming acute-angled plots too narrow for houses to be erected on the frontages provided. Allotments, playing fields and sites for schools, etc., are often planned so as to occupy extensive frontages upon expensive carriageways, when they might easily be placed behind the house plots so as to occupy no road frontage or the minimum necessary to afford convenient access and secure oversight.

In numerous instances amendments to plans submitted have led to a saving of as much as 15 ft. of road frontage per house (or, in terms of money, about £20 per house). The extravagance in planning would not have been readily detected in many cases without actual measurement of the length of roads ; it is clear, therefore, that this computation has been amply justified.

Computation, however, should not be postponed to the time when finished drawings of a lay-out have been submitted for approval. If the architect or surveyor who prepared the plans were to calculate the frontages for himself a great deal of vexatious delay would be obviated. As all schemes must necessarily be judged by certain standards of economy, it is obviously wise to test them by these standards from the beginning.

As there sometimes arises a misapprehension concerning the nature of such a computation, it may be well to give a brief description of the method employed.

(1) The total existing and new road frontage, measured along all the boundary fences between the building plots and the roads, should be first measured. This gives the total gross frontage. From this figure are deducted—

- (*a*) The amounts of the frontages to open spaces and reserved sites *not chargeable* to the scheme. In this category are included large open spaces which are provided for the needs of the district generally rather than for those of the particular scheme, and sites reserved for special buildings where the cost of the road frontage occupied will be recovered on the disposal of the site ; and
- (*b*) Frontages to open spaces *chargeable* to the scheme. Open spaces chargeable to the scheme include open spaces provided for the actual needs of the scheme, such as recreation grounds, allotments and roadside greens, the total area of which varies very much but is frequently about 10 per cent. of the total area of the site.

The resultant figure will give—

(2) The net total road frontage used for house building plots. This total divided by the number of houses in the scheme gives—

(3) The average frontage per house, which in normal circumstances should be in the neighbourhood of 36 ft., 40 ft. being regarded as a high figure.

It is not possible to name any definite figure as a reasonable additional frontage for open spaces owing to the great variety of circumstances, but it may be noted that if 10 per cent. of the area of the scheme be devoted to open spaces and 10 per cent. of the frontage be occupied by them, the open spaces will together have the same proportion of frontage to area that has been given to the building plots.

The checking of these figures is essential to the economy of the scheme, and the Architect or Surveyor who prepares the lay-out is not limiting his freedom of design by working them out. On the contrary, he will find them of actual assistance in the performance of his task, for the analysis involved in their computation is not only necessary to the criticism of a lay-out, but most helpful to its successful design.

A.T.E. in *Housing*.

A New Profession.

The American Industrial Engineer.

FROM AN ARTICLE BY FRANK D. CHASE, IN THE "TIMES TRADE SUPPLEMENT," AUGUST, 21ST, 1920.

Profiting by his own and the experience of others and by the wide intra-trade dissemination of manufacturing data, the manufacturer recognises that the building's present and future must be considered in the light of equipment, in fact in many industries the building structure is an integral part of the equipment. He recognises that large investments of capital are not only justified to reduce labour costs, but essential to reduce employment of labour. He recognises as must all employers and employees, that labour-saving equipment and buildings which increase production mean higher wages, larger profits, better working conditions, *i.e.*, "good health, long life, and prosperity" for all.

These results are being obtained through the scientific analysis of the problems involved. This analysis may be the work of an engineering staff or of an "Industrial Engineer." Few corporations can command the exclusive services of engineers of broad experience and for this reason the profession of industrial engineering, *i.e.*, the engineer of industry, has developed.

The engineer of industry has many functions and opportunities. Indeed, the field is so vast, the opportunities so many, that the profession, like that of the law, is one of specialisation. The development of an industrial plant project can best be illustrated by an outline of the steps to be taken. These steps may be listed in their order as :—(1) Location ; (2) lay-out ; (3) design ; (4) construction ; (5) equipment ; (6) operation.

LOCATION.

With reference to location, each of five factors requires careful and scientific analysis. These are :—

(*a*) Supply of raw materials.
(*b*) Market for finished products.
(*c*) Labour supply.
(*d*) Transportation for raw materials from source to supply, and transportation for finished products to market.

FACTORS AFFECTING SITE.

(*a*) Raw materials must be of the proper quantity and quality. The supply must be constant, stable and inexhaustible. Substitutes for materials ordinarily used offer large opportunities for increased production and profits. Industrial chemistry enters into this question very largely. New materials developed through chemical research frequently give rise to quite new industries. Many existing industries and most new industries owe their being to the chemical research of the industrial engineer. Freight rates and speed of rail or water transportation affect the raw material supply.

(*b*) The market for finished products takes into account the amount of consumption within the economical limits of distribution. This applies to the corner cigar store as well as to the tractor plant which ships to points within a radius of a thousand miles.

The United Cigar Stores Company estimates the number of people who will daily pass its stores. This is a determining factor in their location. The Tractor Company figures freight versus number of farms within its territory. Amount of competition fixes the percentage of the total trade, which may be expected. The kind of people, their tastes, habits, mode of living, and the amount and distribution of the population affect the market for finished products.

(*c*) Labour supply is affected by the number of people available in a given section, their nationality, training, experience, education, and availability. The steel mill, the foundry, or the factory, employing men, women or children, must be accessible to the type of people which it desires to employ. Many factories are failures because they cannot obtain the services of the class of employees they require, in competition with other plants in locations more accessible or otherwise attractive to the employee.

(*d*) Transportation as a factor in the cost of the product must be considered with reference to both raw material and finished product. Not only are there limits above which freight rates cannot go,but the rail or water service must be continuous, direct and at a minimum rate of time. If intermittent, surplus supply must be contracted for and provision made for handling and storage. The ore from the Lake Superior Mines and coal to points on the Great Lakes can only be transported during eight months of the year. Mountains of ore and of coal must then be stored to provide for the consumption of the winter months. Labour can be moved, markets created, but the necessity for and cost of transportation remain fixed, and consequently are often determining factors in locating a plant. Assuming that the city in which the plant is to be located has been determined, it is necessary to analyse the needs of the location within the city :—

Transportation of raw materials and finished product by water, rail or truck.
Labour supply accessible to plant.
Transportation of labour within reasonable limits of time and cost.
Special requirements such as water, power, coal, sewage disposal and waste disposal.
Adequate and suitable shape and size of land for present and future building operations.

It is granted that these points seem obvious, but the fact remains that failure carefully to consider, investigate, and study them has resulted in very many poorly situated plants.

LAYING OUT THE FACTORY.

The second part of the engineer's problem is the making of a lay-out which embraces the following essentials :—

Delivery of raw materials to plant.
Storage of raw materials.
Introduction of raw materials into manufacturing process.
"Straight line" process of manufacturing.
Storage of goods in process of manufacture.
Storage of finished product.
Expansion of each or every department for future needs.
Handling of materials through and between departments.
Machine lay-outs.
Special equipment—ovens, furnaces, vats.
Employees' facilities for physical and mental well-being.

A detailed analysis of all these points is a matter of indefinite length, and in no two instances are the conditions identical ; therefore no hard and fast rules can be set. A few fundamentals may be mentioned, however, which are universally applicable and should always be considered.

Careful consideration should be given to the problems of delivery, storage, and handling of raw materials. The use of bridge cranes, gantry cranes, jib cranes with monorails, chutes, bins, buckets, and elevators, should all be analysed and the merits of each one carefully considered with a view to eliminating man power and substituting therefore mechanical handling equipment.

The second fundamental is the " routing " of goods through the plant ; in other words, the employment of a straight line flow of materials, or, expressed in still another way, the placing of all manufacturing processes in their logical sequence in the plant. It is frequently possible to reduce a movement of goods from raw to finished stages from 1,000 ft. to 200 ft. or 300 ft. This means reduction in the floor space and cost of handling ; frequently entire departments can be re-located to secure advantageous flow of material and effect reduced production costs.

The third fundamental is the handling of parts, either in process or finished. Economy is effected by careful distribution, and an accurate knowledge of quantities required for each operation leads to enormous savings in the amount of stock carried.

Economy in Man Power.

The fourth essential is the use of modern equipment. This means equipment by the operation of which savings in man power are effected. A machine which will save the permanent labour of one man can well be installed at a cost of 10,000 dollars or 15,000 dollars, and there are new plants where large economies could be effected by modernising the equipment. Instances can be cited by the score where production has been doubled by the installation of labour-saving equipment and machinery. The result is larger wages to the employees, the larger wages being cheerfully paid to increase the production without the making of other capital investment, such as larger floor space, to obtain the same reduction.

The fifth essential is the introduction of new processes or equipment developed for special purposes. Heat treatment in all its various phases is being developed with remarkable results. The continuous process of heat treatment is one of the most valuable fields of investigation. Very little has been done in this direction, and very much remains to be done.

The sixth essential is the consideration of the welfare of all employees ; this involves the question of better surroundings, with abundant light and air, adequate rest rooms, luncheon rooms, recreation rooms, retiring rooms, and other rooms for mental as well as physical well-being and development.

Building Design and its Effects.

With regard to the design of a works, first must be determined the necessary clearances, both vertical and horizontal. These comprise heights necessary for manufacturing purposes, including cranes, monorails, and shafting, together with the shape of the cross section of the building which is necessary to give these facilities and at the same time to provide light and ventilation.

It is obvious that both light and ventilation may be classed as natural and artificial. Natural ventilation depends entirely upon the contour of the building as does natural light. There are many instances where artificial ventilation is beneficial to the manufacturing process, as well as to the operatives. Proper artificial light is responsible, as tests have conclusively proved, for 15 to 25 per cent. in increased production. Good lighting, therefore, means a good investment. Proper ventilation means increased production.

Heating is akin to ventilation. A uniform and proper temperature must be maintained in order to secure maximum production. The question of heating involves that of power, and there is a nice balance to be determined between the costs of heating with purchased power and of heating *plus* manufacturing power. The engineer must be competent to make a careful analysis of heat and power costs. In this connection too is involved the use of steam, air, and electric current for power and heating.

Sanitary installations must embody the up-to-date features which mark the modern building. Consideration is due to this subject from the standpoint of health and happiness of the employees.

The question of design cannot be passed by without a word regarding the desirability of worthy architectural treatment. It costs no more to design an attractive building than it does one which is ugly, and the basis for an attractive plant is an attractive building.

Equipment and Operation.

The proper construction of a plant means the execution economically and in a minimum amount of time of the plans and specifications of the designing engineer. The method of execution of construction varies, obviously, with each job, and is dependent on factors of materials, labour costs, and supply. Nothing is gained by the employment of irresponsible contractors, or by an attempt to curtail costs below a reasonable figure which must include a legitimate profit to all parties concerned.

Equipment installation has been mentioned in connection with plant lay-out, and the only comment necessary is to emphasise the point that modern labour-saving equipment frequently means the difference between profit and loss. No manufacturer can afford to keep in his plant a dollar's worth of equipment which does not show a profit, and he cannot afford not to purchase new equipment when the further investments show a saving of labour or materials costs which will result in profits on the capital invested. This is the essential of equipment.

Factory Design.

To The Editor of "The Times."

Sir,—I have read with great interest and profit the article in your issue of August 21st, by Mr. Frank D. Chase, on "Factory Planning and Organisation," in which he points out the many functions and opportunities of the industrial engineer.

At first I wondered where the architect came in, because in this country at any rate there are architects who specialise in industrial buildings, and who hold that the field of factory planning is one within the scope of the architect, with, when necessary, the co-operation of the engineer. Indeed at least one architect of my acquaintance goes further, and maintains that the architect who is worthy of the name has the requisite knowledge to carry out any building entrusted to him, whether of industrial or other type, without extraneous assistance.

There are, however, in my opinion, very few such "Admirable Crichtons" in the architectural profession, and I think most of us consider that a division of labour produces the best results in buildings of this kind.

Proceeding onwards, I find towards the end of the article the architect brought in by the following admirable reference in regard to architectural treatment:—

> The question of design cannot be passed by without a word regarding the desirability of worthy architectural treatment. It costs no more to design an attractive building than it does one which is ugly, and the basis for an attractive plant is an attractive building.

This is almost word for word what I have said over and over again in urging that good architecture is a commercial asset of the greatest possible value. I believe that many business men in other countries recognise this fact, and that they are beginning to do so in Great Britain.

This is the second time in my experience within the last few months that a plea for good architecture has come from what some people would consider an unlikely source, *viz.*, a technical publication concerned with the engineering industry. It goes to prove what I have always maintained, that the allied professions and the community generally are much more alive to the value of good architecture than is generally supposed, and that it is becoming more increasingly recognised that the best results can only be obtained by collaboration amongst those specially qualified to deal with each aspect of such undertakings as form the subject of Mr. Chase's valuable article.

C. McARTHUR BUTLER,
Secretary of The Society of Architects.

28, Bedford Square, W.C.1., *August* 24th.

Federation and Registration in America.

Representative architects and engineers of Minnesota, met at Duluth, on June 29th, and laid the basis for a Federation of the Architectural and Engineering Societies of the State. Delegates from the Minnesota Chapter of the Institute participated in the Conference, which appointed committees to proceed with the work of permanent organisation, report to be made at a second conference called for November 1st. It is not the purpose of the new Federation to supplant or interfere with any of the existing professional bodies but to weld them together for concerted action upon matters affecting the welfare of the state and of the profession as well. Membership in the Federation will be through membership in some local organisation only. It should also be noted that a joint committee of three architects and three engineers has been appointed to draft a registration bill for presentation to the next legislature, and that the two professions should support the bill.

At a special meeting of the Southern California Chapter, held on June 19th, the proposed affiliation of the Chapter with the California Engineering Council was approved and the constitution of the Council was referred to a special committee for later report to the Chapter. Like the Minnesota Federation referred to above, the California Council will be representative of the various technical societies in the state, the expense of maintenance being borne by contributions from those societies in proportion to their membership.—*The Journal of The American Institute of Architects, August,* 1920.

Registered Engineers.

Some six months ago we noted that the Institution of Civil Engineers had proved itself progressive in its proposals for the registration of engineers on the lines of the medical profession. Progress generally arouses opposition and the scheme received sharp criticism from several quarters. We understand that the original draft Bill for submission to Parliament has been definitely dropped, but, in so far as the opposition was for the most part friendly in character, and the criticism constructive rather than merely captious, the promotion of a broader measure is not beyond hope. Such a scheme, to embrace all the many forms of engineering, is also under consideration in America, and in our view its adoption in this country could do nothing but good, provided only that it were sufficiently comprehensive. Co-operation between all existing engineering societies should quickly render such a proposal feasible, and this would also operate towards the extinction of those small and petty jealousies which are so difficult to eliminate between organisations which sometimes unavoidably overlap. Opposition may be expected from a few older engineers who fear an ordeal by examination, but such an infliction should not be essential to the success of the scheme, not indeed necessary in the case of men who have won their spurs by the sheer merit of their long service. If this were made quite clear little opposition would be offered a comprehensive Bill.—*The Power User.*

(These are exactly the sentiments of the supporters of the principle of Registration in other professions. Ed.)

Registration in South Africa.

MARKING TIME.

Mr. Arthur H. Reid, F.R.I.B.A., the President of the Cape Institute of Architects, in his presidential address, says :—In Johannesburg alone there are three architectural bodies, and within the Union there are three Institutions allied to the Royal Institute of British Architects centred at Cape Town, Johannesburg, and Durban, while of the whole lot there is only one that has any authority under Parliamentary enactment, and that authority is confined to the limits of the Transvaal Province. The Natal Institute is an incorporated body with extremely limited authority, and the Cape Institute has neither status nor even recognition by the Central or Provincial Governments. Registered Transvaal architects can practise freely in Natal and the Cape Province, but neither Cape nor Natal architects can so practise in the Transvaal without paying for the privilege, and yet in each of these provinces there exist Institutes of Architects that are in alliance with, and under the control of, the Royal Institute. The architects of Great Britain and every architectural body there have at last decided to join in a general unification, prior to taking concerted action to secure registration and Legislative control. They have at last decided that the old system of disintegration must cease, and it is well to note that all professional bodies in the Colonies and Dependencies of the Empire are to be roped in if they so desire. After dealing with the proposals for amalgamation of the R.I.B.A. and the S.A. in 1911, and subsequent developments, Mr. Reid says it therefore appears necessary for the Cape, Natal, and Transvaal Institutes of Architects as bodies allied to and under the jurisdiction of the Royal Institute of British Architects, as well as the South African Branch of The Society of Architects, to await the results of the current proceedings of the Unification Committee.

Proceedings of the Society.

An Ordinary Meeting of the Society was held at 28, Bedford Square, London, W.C.1, on Thursday, September 9th, 1920, at 6 p.m.

The President, Mr. Edwin J. Sadgrove, having taken the Chair, the Minutes of the Ordinary Meeting of July 15th, as published in the JOURNAL, were taken as read and were confirmed and signed.

The Secretary announced two nominations for Fellowship, eight nominations for transfer to Fellowship, and nine nominations for Membership ; also the admission by the Council to the Register of Licentiates of :—ANDERSON, WILLIAM BROOKE, 41a, Cranbourne Avenue, Benoni, Transvaal. BAGULEY, HERBERT, 5, Victoria Terrace, Ditton, near Widnes. COOK, SAUNDERSON SAUNDER, " Wynnstay," Meadow Road, Loughton. JONES, RHYS, Velindre, Henlland R.S.O., Cardiganshire. JUNIPER, FREDERICK, 29, Hilldrop Crescent, Camden Road, N.7. NOBBS, WILLIAM STEPHEN, 3, Old Wilson Street, Lowestoft. REID, ALLAN DOUGLAS, 52, Wellington Street, Woolwich, S.E.18. THOMPSON, HAROLD WARWICK, 141, Lambert Road, Grimsby. SEVASTOPOULO, ALEXANDER, 21 and 22, Passage, Bakingian, Smyrna. STAFFORD, ARTHUR JAMES, Bushfield House, Fairview, Dublin. TAYLOR, ARNOLD, 18, Clarence Street, Bishop Auckland. WILLIAMS, WALTER HUGH, 84, Grosvenor Road, Highbury, N.5. WILSON, VICTOR HUGH, 91, London Road North, Lowestoft, and WORRALL, HERBERT WILLIAM, Le Strange Terrace, Hunstanton ; and to the Register of Students of :—ANDERSON, HAROLD, " Grove Cottage," Blean, near Canterbury; and YATES, JOHN VICTOR, " Elmfield," The Close, Blandford.

RESIGNATIONS. The Secretary announced the Resignation of J. W. H. FARROW, Member, of South Africa; and the following Students : L. CAVANAGH, of London; V. C. A. MUNCKTON, of Wimborne; and F. W. TAPPING, of Aylesbury.

DEATH. Sympathetic reference was made to the loss sustained by the Society through the death of MR. W. J. HADLEY, Member, of Pontardawe, who was elected a Member in 1912.

The ballot was then taken for the election of the following Candidates for Membership, and was declared to be unanimously in their favour :—

AS A FELLOW.—VERITY, FRANK THOMAS, F.R.I.B.A., 7, Sackville Street, W.1.

AS FELLOWS TRANSFERRED FROM MEMBERSHIP.—BARRETT, HERBERT STANLEY, Gray's Inn Chambers, 20, High Holborn, W.C.1. CULLEY, NORMAN, F.R.I.B.A., 13, John William Street, Huddersfield. CULVERHOUSE, PERCY EMERSON, 4, Churchfield Road, Ealing, W.13, and Architects' Office, Paddington Station, W. DAVISON, THOMAS GERRARD, 7, Dean's Yard, Westminster, S.W.1. DAVIES, HAROLD EDWARD, Ocean Chambers, 14, North John Street, Liverpool. HALL-JONES, FREDERICK, F.S.I., Parliament Mansions, Victoria Street, Westminster, S.W.1. HENRY, THOMAS WILLIAM, Ocean Buildings, Donegal Square East, Belfast. HOLT, RICHARD, 64, Rodney Street, Liverpool. HUNT, EDWARD ARTHUR, F.R.I.B.A., Donnington House, Norfolk Street, Strand, W.C.2. HUNT, WILLIAM, F.R.I.B.A., Donnington House, Norfolk Street, Strand, W.C.2. INGRAM, WILLIAM GEORGE, 4, Verulam Buildings, Gray's Inn, W.C.1. LAMB, EDWARD BECKITT, 1, Romola Road, S.E.24. LESLIE, COLONEL F. S., R.E. (Ret.), 24, Wood Street, Woolwich, S.E.18. MATTHEWS, HERBERT WILLIAM, Westfield, Bloomfield Road, Bath. PARSONS, FRANK BERNARD, 105, Colmore Row, Birmingham. PEARSON, JOHN HERBERT, 212, Upper Thames Street, E.C.4. PENTY, FREDERICK THOMAS, Lendal Chambers, York. PITT, JOSEPH HENRY, F.S.I., 142, Holborn Bars, E.C.1. ROBINSON, WILFRED HAROLD, Hill Cottage, Linton, near Maidstone. WALTON, WILLIAM BILLINGTON, 19, Clifton Street, Blackpool. WILSON, JOHN ARCHIBALD, 92, Bath Street, Glasgow.

AS MEMBERS.—ANDERSON, STANLEY PERFITT, 28, Eastbury Road, Kingston-on-Thames. APPLETON, HENRY, Woodfield, Park Avenue, Bush Hill Park, Enfield. BANKS, WILLIAM ARTHUR, 124, Moorland Road, Davenport, Stockport. CRAWFORD, DOUGLAS, Market Chambers, Newgate Street, Bishop Auckland. EASTWOOD, JAMES EWART, 43, Chatsworth Road, Bournemouth. EVANS, EVAN IVOR, Gilfach Road, Tonypandy. GREEN, THOMAS FRANK, A.R.I.B.A., 272, Willesden Lane, N.W.2, and H.M. Office of Works. HALL, CHARLES ARTHUR, Whitehall Road, Drighlington, near Bradford. HALLETT, JOHN ROBERT JORDAN, 70, King's Road, Cardiff. HARRINGTON, LLEWELLYN HARRY, The Bungalow, Mill Street, Belper. LINFORD, ARTHUR BANKS, A.R.SAN.I., 30, Barnsley Road, Wombwell. MOORE, HARRY EDGAR, 4, Quentin Road, Blackheath, S.E. NEWBOLD, HARRY BRYANT, Crow's Nest, Kewstoke Road, Weston-super-Mare. ROUSE, EDWARD HENRY, Hankow, China.

The proceedings then terminated.

Architectural Competitions.

Public Bodies and others have of late years frequently had recourse to Competitions amongst Architects where buildings of a public or otherwise important nature are needed.

It is assumed that the motive prompting bodies who promote such competitions is that they are desirous of getting the best design possible for their project.

Architects taking part in such Competitions are naturally desirous of producing the best possible designs. It will therefore be readily seen that the interests are identical.

It not infrequently happens, however, that conditions issued in connection with such competitions are faulty and offer no inducement to Architects to compete.

When such conditions are brought to the notice of the R.I.B.A. or the Society, the authorities concerned are at once communicated with, and the defective or unsatisfactory clauses in their conditions pointed out. In many cases, the Authorities concerned (who it has been found have usually drawn up their conditions in ignorance of the Regulations published by the R.I.B.A. and The Society of Architects), are willing to revise their conditions so as to render them satisfactory. In other cases, however, no such desirable results have been arrived at, and in consequence many competitions have of necessity been banned. When this has occurred, sometimes no designs have been submitted and often only a few designs from Architects of little or no standing in the Profession.

If the Regulations governing such competitions were adopted by all bodies promoting them such vexatious delay would be avoided and the banning of competitions would be at once unnecessary.

Promoters who are considering a Public Competition in its earliest stages should at once appoint an experienced Professional Assessor to advise them. He will draw up the conditions regulating the competition, incorporating in such conditions all the essentials needed by the Promoters, and he will at the same time be fully conversant with the Regulations issued governing architectural competitions to which he will closely adhere.

His advice will also be invaluable to the Promoters in arriving at the technical answers to questions, in deciding what is a reasonable cost for the buildings, and finally in judging the best design and the practicability of its being erected for the cost stipulated.

Further, the fact of a good Assessor having been appointed has a strong moral effect upon those of his fellow-Architects, who are contemplating the preparation of a design. They would naturally prefer their design to be judged by one who is expert in the subject rather than by a Committee of laymen, who cannot hope to possess the necessary qualifications in this respect.

If the Promoters so desire, the President of the R.I.B.A. or the Society will be pleased to advise them in the nomination of an Assessor.

The R.I.B.A. and the Society again point out that they have no desire to place a ban upon any Competition. It cannot, however, be too clearly stated that unless Public Competitions are promoted in such a manner as will ensure a satisfactory decision and the conditions are in accordance with the Regulations issued by these bodies, delays and disappointment will inevitably follow.

H. V. LANCHESTER, Chairman, R.I.B.A. Competitions Committee; W. G. WILSON, Vice-Chairman; HERBERT A. WELCH, Hon. Secretary, 15th July, 1920; C. MCARTHUR BUTLER, Secretary, The Society of Architects, 23rd August, 1920.

Treatment of Weather-worn Stonework.

By Arthur W. Jordan, in "The Stone Trades Journal."

When one reads in an advertisement or elsewhere of anything possessing, amongst possibly many other virtues, the valuable one of being fool-proof, how the lover of good building wishes that could be said of any sort of stone, because, alas ! many a piece of good stonework, over which every care may have been taken in the working and finishing, meets no better fate than to fall into the hands of fools sooner or later.

The ordinary man finds his greatest appreciation of stonework, generally, when it is newly erected, and as soon as it begins to take on " the honoured hue of time " it worries him. He wants to go out with a brush and pail, or to send someone else out with one, to clean it up; and so an architect's finest creation may be marred by anyone possessing more zeal than knowledge who cares to spend money and time on an unnecessary job. Unfortunately, such people have no eye for the finer effects which time bestows on those things that endure, and there are a lot of people in the world who have not yet discovered that half the energy expended at the present day is completely wasted on jobs that do not need doing.

Amongst these jobs can be included many of those dealing with the cleansing down of stonework, because in most cases they are unneeded altogether, and where they are necessary, they are unscientifically and, in fact, thoughtlessly, as a rule done. Only when stonework shows signs of crumbling is it necessary to do anything. The fact that a stone changes from a cream or a rich brown to a grey or mottled appearance is no warrant for ruthlessly removing its outer skin by means of wire brushes and acid or alkali waters and laying bare to the atmosphere its original quarry colour. The grey or mottled look is quite as natural as the other and only represents the action of old Kronos and the atmosphere which we all weather under, and like the different stones some of us well and some of us badly, according to our natures.

Of course, the latter consideration brings up the fact that some stones weather worse than others rather sharply, and as soon as any stone begins to show signs of crumbling it may be taken in hand with some probable advantage. It is, however, before this stage is reached that we see the owner of the suburban villa rushing about with a paint pot and brush committing all manner of atrocities, with the result that every intelligent passer-by who has always despised his house because of its sham and tawdry decoration, now hates it worse than ever. Fancy giving sound stonework two coats of oil paint.

The carved capitals on the front bay window may have been abominations before, but when they are tricked out in a ground of cream paint with red oxide leaves and flowers they become ghastly nightmares, and the man who put the blight upon them has not the taste or sense to know the evil he has wrought ; so stonework falls under the scorn of the man with more taste but little deeper thought, and that's how fashions in building originate.

Now, it is therefore the duty of a journal like this to try to educate those who have to deal with stone to know that the honourable marks of time are not to be deprecated, but approved, as bestowing new beauties which it is everyone's business to train themselves to value properly. It is also, however, a duty to teach how the real ravages of time may be prevented in a proper manner. That does not mean one treatment for all kinds of stone, but a proper knowledge of what is best in individual cases.

With this latter consideration in mind one marvels at the foolhardiness of a man going out to remove the lichen, etc., from a Bath stone wall with a vessel full of weak hydrochloric acid and water. However weak it may be, and it must have a certain strength or it will fail to kill the lichen, it is about as injurious a mixture as could be applied to such a stone. On Craigleith its effect, if well washed down after with two scourings of clean water, would be without any seriously harmful results, but on Bath stone it would take many after-washings to eradicate the mischief done. It is safe to say no acid should be applied to any oolitic limestone.

The best way to deal with a stone of this character showing signs of decay—not to remove lichen as only in exceptional cases is that necessary and defensible, is to scour down with clean water in which a little alum has been dissolved, and a piece of soft stone. Then wash down thoroughly with a brush and clean water. Some of the sandstones, as Forest of Dean or York, may be treated the same way. When acids, however weak, are used on Hollington, Darley Dale, or Craigleith, no greater proportion than one in fifteen to twenty of water is wise, and then the washing down must be very thorough, the water being allowed to soak well in. No acid should be permitted to stand on any stone for more than an hour, so if the job is a large one, the man with the acid should be followed in not more than a quarter of an hour by one with the swill water and brush, and one pailful should not be expected to do a very large area, eight or nine square yards being the utmost extent.

Even with the best intentioned, accidents will happen, and sometimes stone gets stained by grease or other disfiguring agents which must be removed, if possible. Various means of doing this have been advocated, mostly employing alkalies or acids. Only experienced people should be trusted with these, and for the generality of grease and similar stains, there is nothing better than a mixture of Fullers' earth and borax or a smaller quantity of carbonate of soda made into a paste with rain water. Put a coating of this on the stain, leave it on to dry, then brush off, using no water, but dispersing in a dust, which shows how dry the paste should have become. If there is still a slight stain left in the stone it will now probably wash out with clean water if the paste was originally put on wet enough. If the stain is obstinate give it another coating.

Where stone shows signs of crumbling the best thing to do is to rub away the weak outside skin with a piece of soft stone and water, and allow to dry thoroughly. Then apply a mixture of one part linseed oil to seven of tar naphtha and three parts of best American turpentine. If the tar naphtha has one or two parts of white shellac dissolved in it all the better, but probably one part is better than two, or the coating may flake. This preserves the stone and is colourless, only making the part so treated a trifle darker in tint than the untreated, but it is scarcely noticeable.

An Acknowledgment.

In reproducing in our last issue a summary of Mr. Darch's paper on the Lighting of Churches we unwittingly departed from our custom of acknowledging the source of information. In this case it was *The Builder* to whom we were indebted.

The Apprenticeship System.*

RETROSPECT.

A retrospect of the history of apprenticeship may be of service in ascertaining any good points in former systems, the reasons for their falling into decay, and the causes of the present unsatisfactory position of the Apprentice of to-day.

Before the eleventh and twelfth centuries Trade Guilds seem to have been predominant directors of the Apprentices and their teaching.

The Guilds of earlier days seem to have covered many trades and to have included Masters, Journeymen, and Apprentices, who each worked several trades.

As population and wealth increased in the thirteenth, fourteenth, and fifteenth centuries, the Trade Guilds seemed to have become more specialised and were looked upon and generally so-called "Craft Guilds."

Guilds at this period seem to have reached the full zenith of their influence and were established not only in towns but in many villages.

They had great power, for practically they embraced the Masters, Journeymen and Apprentices, and the local Mayor or Magistrates to represent the public interests. This gave them an authority for their decisions and conduct equalling a court of law. They controlled not only the manual and physical training, but took a paternal interest in the moral and general development of the Apprentices as well as paying the Master Craftsman for training the Apprentice.

Such intellectual training as they received had, of course, to come from their employers, fellow workmen, and their own natural observation. Up to this period the Master Builder did not generally supply any material but only the labour necessary. The wages of Craftsmen were about 5d. per day in the thirteenth and fourteenth centuries. Apprentices had their board and lodgings found in lieu of wages. In all the vicissitudes of five centuries the cost of labour was regarded as a first charge on the industries, and did not vary in bad and good times.

We seem at the present time to have reversed their practice, for many Employers look upon labour as the last, not the first, charge on their industry. As a result, we have much loose talk in times of slackness of notices for reduction of wages, and the obvious reply from the other side of notices for increases in times of good trade or artificial shortage of men.

The "Craft Guilds" held sway in the fifteenth century and up to the middle of the sixteenth. The buildings still existing and completed during this period bear witness to the soundness, skill, and cleverness of their work. From other evidences also we must conclude that the scheme was well suited to the times, although some of the conditions would be resented in our days of greater individual liberty.

At the end of the fifteenth and in the sixteenth century a change of character appears to have developed in the "Craft Guilds."

During the fifteenth century Master Craftsmen, as they progressed in affluence, began to make articles for stock and not to be content, as they seemed to have been before, to make only to order.

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* *From a pamphlet by Mr. Frank Woods, of Bolton.*

From this fact we can trace the decadence of the " Craft Guilds."

The practice of making for stock developed or introduced a body of members, who became " dealers in articles " and not " makers of articles " of commerce. These merchants or dealers grew in affluence and dominated the Craft Guilds. They accumulated bigger funds, endowed schools, charities, and religious foundations, and apparently still carried on as a minor side-line the education of Apprentices and general direction of the trades.

In the sixteenth century many of them came under the ban of legislation aimed at semi-religious institutions, many of their funds being confiscated, and their powers were finally taken away by the Apprenticeship Act, 1549, enacting a seven years' Apprenticeship for all trades.

Since then Apprenticeship has been more or less a custom, but without any overseeing or directing authority. Except in individual trades at intermittent periods, nothing has been done by trade organisation or legal enactment to codify and introduce a sound scheme for Apprentices.

I have not been able to trace in the Act of 1549, or since, any real effort to re-instate the effective machinery that existed for Apprentices under the Guild system.

The legislature thought they had done all that was necessary when they said every young artisan should serve seven years.

The man in the moon, or the one still further off in Mars, might oversee the Apprentices training, but not anybody the Government ever set up.

A further injustice to the Apprentices was the confiscation of the funds which clothed and kept them during their training, by providing premiums and also looking after them when unemployed or sick when they became journeymen.

Frequent instances are met with where the Mayor and Aldermen have disallowed some new rule a Guild wanted to enforce, showing there was some check on behalf of the general public. About this time a great many of the Guilds were killed by the legislation quoted above, because most of them had lost their character of Trade Guilds and had been gradually transformed into semi-religious bodies with an educational bent.

As such they became involved in the quarrel of the two Henrys (VII. and VIII.), which they had with the Church.

Some few of these Merchants or " Dealers' Guilds" (not workmen, apprentices, and masters as they had been in former times) retained their charters and funds and continue to this day, but principally as " Dining Guilds " dispensing benevolent funds as they accumulate.

In some towns the old custom of " Guild Day " is still kept up, notably the London Lord Mayor's Show and the Exeter and Preston Guilds.

" Journeyman " seems to have been in the middle ages what used to be called in quite recent time an improver, who in those early days journeyed about the country for three years after his apprenticeship was finished to gain wider experience. Some of the Guilds looked after these Journeymen and gave certificates of trade proficiency and general conduct when the Journeyman passed on.

There does not appear to have been much attempt to revive the custom and control of Apprentices in the following two centuries. The seven years' apprenticeship prescribed by law in 1549 was customary however.

During Elizabeth's long reign and spacious days it worked fairly well for the trade of the country, but with this exception for two centuries nothing but revolution, civil war, and deposition of kings seem to have been thought of ; certainly a great many of the trades forgot their art.

This phase lasted, so far as any alteration in the Apprenticeship question was concerned, until the nineteenth century and the introduction of the Steam Engine, followed by the establishment of the Factory System.

Now commenced the most abominable and inglorious pages in the history of the employment of juvenile labour. Steam Engines and Machinery were set up. The hand Craftsmen wanted a living wage for working the machines, and in many cases resented their introduction under the mistaken impression that it would take their trade away.

The "get-rich-quick" employer who flocked into the different trades and set up as "Masters" or "Manufacturers" demanded cheap and cheaper labour, so as to train them to work the machines.

I entirely disagree with that school of political economy who would treat young (or any human) labour as merely only subject to the *law of supply and demand*. You cannot eliminate humanity from your code when you are dealing with the pulsating body and brain of your fellow-workman every day of your life, yet for many generations the political economists have had their way and claimed something superior for their creed which squeezed all bodies, both animate and inanimate, into one narrow code.

The introduction of the Factory System commenced a further decline in the standard of juvenile labour and apprenticeship.

The majority of the new employers had no trade training or pride of Craft or intimate association with their workmen to correct the crazy rush of the age, but demanded that as unskilled adult labour was not present in sufficient quantity, that child labour should be thrown into the furnace to appease this modern Moloch.

What was proclaimed as such a success in the Factory System was bound to influence other trades. Factories did not require a seven years' apprenticeship, but quickly manufactured juveniles into full-fledged operatives, thus influencing other trades to slacken or drop altogether any requirements of apprenticeship still remaining.

At the end of the last and throughout the present century many Employers and Workmen have been working for a better understanding by our industry on this question. One cannot read the history of this later period, since the introduction of the Factory System, without being moved to a resolve to do something to remedy the evil then wrought, and, if possible, to prevent its recurrence in this country. It is in this sense that I have deliberately come to the conclusion that the trade unions should be invited to jointly control the number entering the trades, the conditions of their employment, and rates of pay. I strongly urge that these should be included in an Indenture of Agreement, to which the trade unions, the employer, the parent, and the Apprentice should all be parties.

The Apprentice ought not to be regarded as a money-producing unit in industry, but as a juvenile who is entrusted to each Employer and industry for the completion of his education. The industrial education of the Apprentice should be regarded as a charge on the industry, just as Rates, Taxes, Insurance, etc.

The Examinations.

The details of the new Examination scheme and Syllabus have not been finally settled. It is therefore probable that the first examination under the new regulations will not be held until April, 1921.

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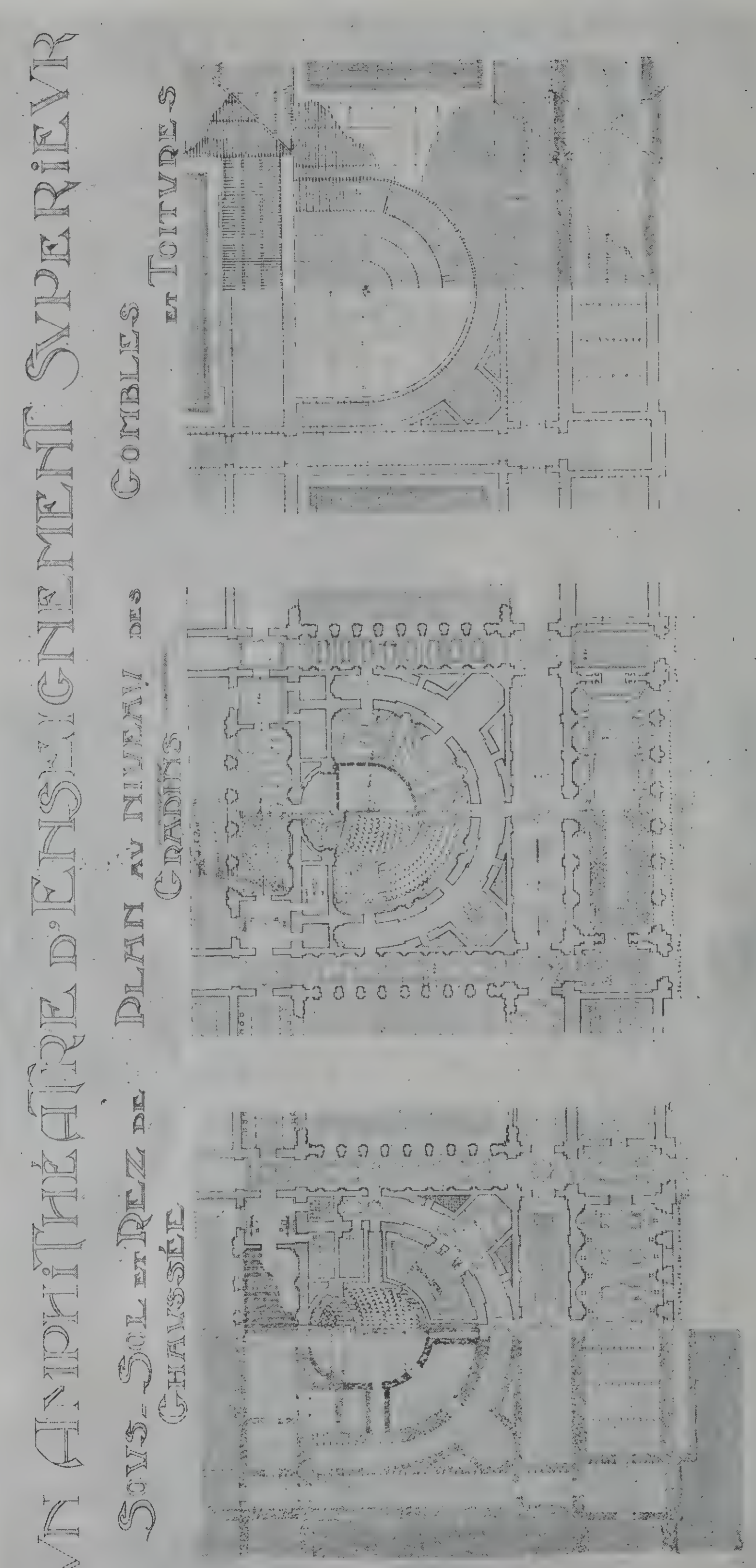
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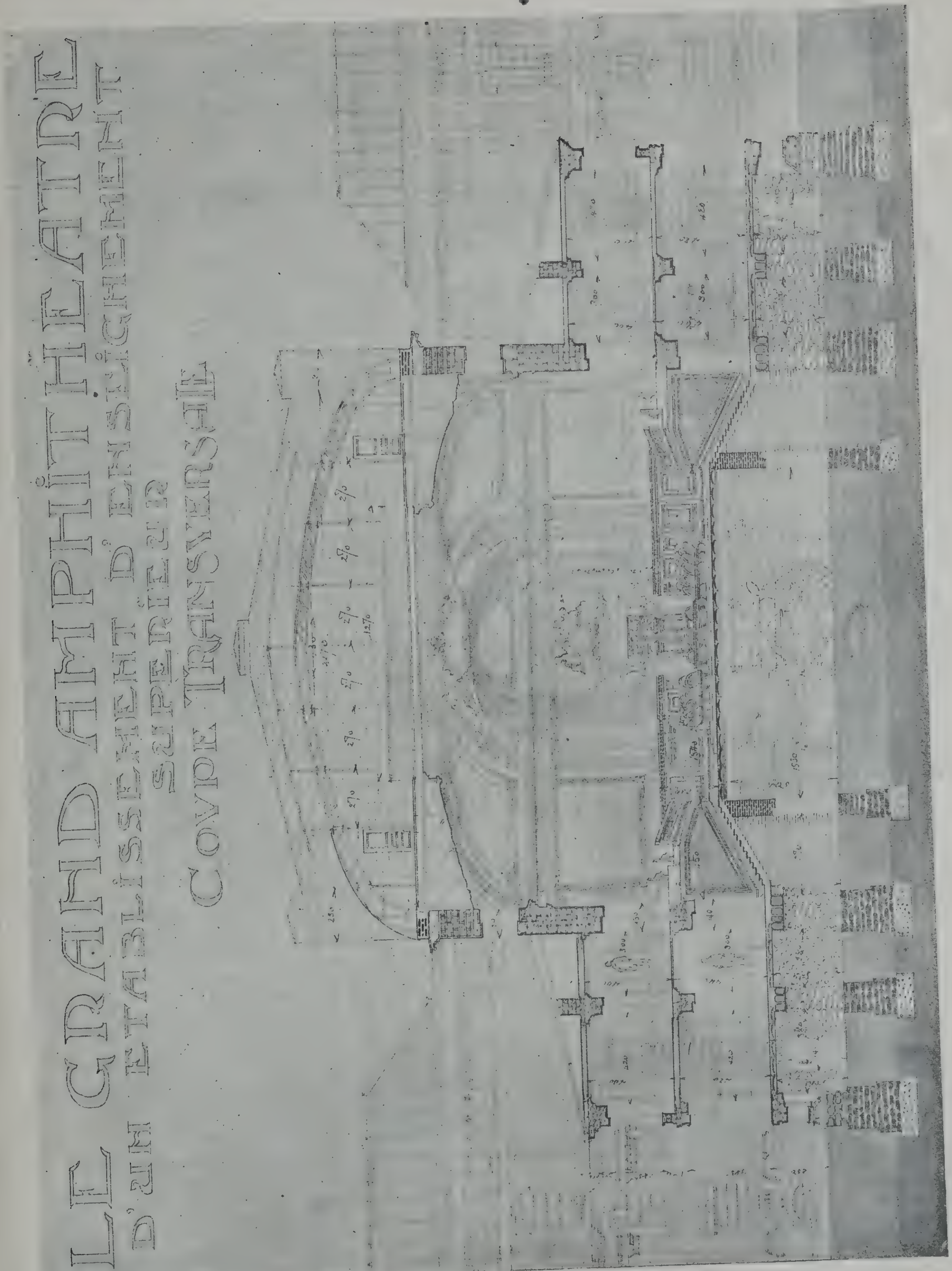

From The Society of Architects Exhibition of Beaux Arts Drawings.

The Professional Man and Industrial Unrest.

Mr. Horace W. Langdon read a paper on "The Professional Man and Industrial Unrest," before the engineering and architecture section of the Royal Sanitary Institute Congress, at Birmingham, in which he said that one of the greatest problems perplexing the world to-day is that of industrial unrest; underneath almost all other difficulties and problems there is this urgent, imperative question: How can the whole of those people who labour, whatever their status, be brought into closer touch, into more harmonious relationship?

I firmly believe that to-day the professional man is called upon to exercise his undoubted influence in the solution of this, at present, baffling problem; we are, by reason of the nature of our work, brought into closer contact with the people, their aims, desires, and lives, than almost any other section of the educated classes. Moreover, experience has taught some of us that the operatives would welcome the advice, encouragement, and co-operation we might give.

In order that we may be of real service in this matter it is essential that we should seek to enter to a far greater extent than hitherto into the councils of the building and engineering trades. I am aware there are many objections that may be raised to what might be termed our interference; at the same time there are a far greater number of reasons to be advanced in support of some action on our part.

That there will be difficulties goes without saying. These will be chiefly met by the man in private practice, but after all is said, the architect and the engineer are the chief workmen. True, theirs is the creation, theirs the inception, but theirs also is the finished work, and the "drawers of water and hewers of stone" are fellow-craftsmen; and in these days of direct labour and semi-direct labour the architect or engineer have far greater opportunities of getting into touch with the men whose business it is to shape and fashion that which has been designed than had their predecessors. Time will not permit me to dwell upon the subject of saving in cost that might be effected. It is a vital one, however, and men who are contented are far better workers than men who are not. Contentment means good work and increased production, and increased production means, as we are so often told, more work to be done, and therefore greater contentment.

It is certainly a little difficult to indicate clearly how the professional man in private practice may best assist in bringing about this most desirable state of affairs. Of one thing I am quite sure, and it is that whoever the operative may harbour a real or fancied grievance against, he certainly has no ill-will toward the architect or engineer, although he does feel that he himself is too often treated as though he were just a machine.

By this I do not infer that he is hard driven or unkindly controlled—the day of such things has certainly passed; but the average mechanic, who is educationally far in advance of the mechanic of a generation ago, does feel that he is called upon to carry out some small portion of the work without any enlightenment as to the greater whole to which he is contributing. His peculiar work may be and often is uninteresting, yet if he be allowed an insight into the scheme of things in their entirety, he would at once have a different outlook, an enlarged vision. Is there anyone better fitted, more able to call into being this spirit of comradeship, this atmosphere of the "Guild," than the chief workman himself?

The Building Industry.

An Agreement with the Government.

Broadly speaking, says the *Daily Telegraph*, September 13th, 1920, the scheme which the Building Re-settlement Committee of the Joint Industrial Council for the Building Trade have agreed with the Government to put before the Unions is that apprenticeship shall re-commence generally, and that in particular there shall be gradual augmentation of the supply of skilled labour by the admission of adult apprentices up to the age of 26, to serve a three years' apprenticeship. The number of apprentices to be admitted will be regulated by negotiations between the employers and the unions, according to the special requirements of the various trades. In the case of all men over 23 years of age, and of ex-Service men below that age, who enter as apprentices, it has been possible to propose pay on a graduated scale high enough to attract good men without giving them an unfair advantage over younger men serving on ordinary indentures.

The negotiations, of which the agreement is the outcome, date back to July, 1920, when a Cabinet Committee was appointed to consider the whole situation. It was generally agreed that the root cause which was delaying progress in housing schemes was short supply of labour, especially skilled labour. The difficulty of the position will readily be seen by reference to the following approximate comparative figures for England and Wales as to labour in the whole building trade :

	1901.	1911.	1914.	1920.
Masons	73,012	52,188	34,381	19,310
Slaters	9,796	8,391	4,154	3,673
Plasterers	31,301	25,082	19,479	12,067
Joiners	265,000	208,995	126,345	108,199
Bricklayers	115,995	102,752	73,671	53,063

Certain proposals to meet the situation were formulated by the Cabinet Committee, the main elements of which were :

> 1. An increase in the numbers of skilled men in the trade by the grading up of unskilled men, the training of ex-Service men, and the resumption of apprenticeships, extended to older men ; (2) a system of payment by results ; and (3) a guarantee against loss of wages for time lost on housing schemes through stress of weather.

The *Times'* report states that the Re-settlement Committee criticised the methods suggested, and definitely rejected the proposals for payment by results and for up-grading. They made counter-proposals for augmenting the supply of labour by the introduction of adult apprentices.

The Government thereupon formulated revised proposals for increasing the supply of labour (partly by admitting ex-Service men as apprentices up to the age of 26, for an apprenticeship of three years, their minimum wage beginning at 50 per cent. of the journeyman's wage), and for increasing output.

After further negotiations, the Re-settlement Committee submitted modifications in the Government plan. They regarded it as essential, to meet the Government's proposal to start adult apprentices at 50 per cent. of the standard rate, that employers should be given some guarantee in regard to continuity of contracts over the period covered by the indentures. While preference should be given to ex-Service men, the committee objected to making this a hard-and-fast condition, since if trainees for the skilled trades could be drawn from the ranks of the unskilled in these trades, a greater decree of immediate efficiency might be expected than by employing men entirely unconnected with the building trade, merely because they were ex-Service men. The committee agreed that housing schemes should have the first call on labour, and urged that the distribution of contracts is necessary in order that the greatest possible proportion of existing building labour shall be available for the purpose.

After explaining the objections to payment by results, the Committee submitted that an increased output per man would directly result from a suitable augmentation of the *personnel* of the trade, and by re-arrangement and improvement of existing working conditions. They said that practical men agreed that greater output is produced on jobs on which a full complement of workmen is employed. The concession of some payment in respect of time lost through stress of weather would attract back to the industry a large number of men who have migrated to other occupations.

The agreement which has been reached is based on the Government's proposals and the Committee's modifications indicated above. The arrangements for dealing with loss of wages through stress of weather will be settled between employers and operatives, subject to the approval of the Ministry of Health, in so far as the finance of housing schemes may be affected.

Pan-American Congress of Architects.

RESOLUTIONS PASSED AT A MEETING HELD AT MONTEVIDEO IN MARCH, 1920, AND COMMUNICATED TO THE SOCIETY OF ARCHITECTS BY THE FOREIGN OFFICE

I. CITY IMPROVEMENTS. 1. That the Government and Municipal Authorities of all American countries should legislate in regard to the adoption of uniform plans for towns and cities, the present system of "squares" to be followed only in exceptional cases ; the laying out of parks and gardens, and the choice of plants, shrubs, etc. ; the selection of suitable sites for public buildings and monuments ; and the framing of regulations complementary to the above.

2. That a special course of "City Improvements" should be included in the curriculum of Colleges and Schools of Architecture, and that free classes should be given by the Architects' Societies.

3. That Leagues should be founded in every American city to arouse, direct and stimulate Government initiative.

4. That a "Pan-American City League" should be founded.

II. BUILDING MATERIALS. That the Governments of American countries should direct the attention of their Institutes and State Laboratories to improving the method of production and exportation of building materials peculiar to each country and that the use of such material should be encouraged in every way. That an account of such investigations should be published by an International Institute. That the Architects' Societies should form exhibitions of building materials and effect an inter-change of such materials.

III. PROFESSION OF ARCHITECT. That, in order to improve the aspect of towns and cities ; to frame definite rules as to the conditions of dwelling houses, which influence to so great an extent the people's moral and physical well-being ; to ensure the beauty, safety and hygiene of every kind of building ; and generally to diffuse culture, the degree of Architect must be recognised by the State, and the duties of the profession, which is the only one in a position to deal with the problems under discussion, established by law.

IV. Cheap Dwelling Houses. That the Government and Municipal Authorities should be encouraged to co-operate in the construction of dwelling houses that shall be both cheap and hygienic. That the construction of detached houses in the neighbourhood of industrial and manufacturing centres should be encouraged, as also the erection of tenements in densely populated centres. That, before granting permission to build, the ground on which such houses are to be erected, shall be supplied with drainage system, light and pavement. That the Municipalities and Departments concerned shall be required to modify the building regulations at present in force adapting them to the economic needs of such buildings, in order to effect a saving in the execution of the works without leaving anything undone pertaining to the hygiene, safety and general aspect of such buildings. That attention should be drawn to the desirability of founding in each country a " National Bank for the building of cheap houses," to which employers, capitalists and wealthy landowners should contribute. The night-shelters for those unable to afford a cheap and decent lodging should be built.

V. Public Culture. That to educate the public appreciation of architecture, exhibitions of applied arts should be held periodically. That the Authorities should form museums of casts of the works of famous sculptors and architects, and that free access to public buildings and monuments should be granted. That a yearly prize for the best conceived and executed building should be awarded, and that lectures on the subject should be given in the primary and secondary schools of each country.

VI. Professional Responsibility of the Architect. That the Governments of American countries should frame laws defining the responsibility of the Architect, specifying clearly the responsibility of the Architect and that of the Contractor.

VII. Architectural Training. That, for any progress to be made in the architecture of American countries, special Schools or Colleges of Architecture should be founded in which the necessary artistic, technical and scientific training would be given.

VIII. " Pan-American Centre." That a " Pan-American Centre " should be formed, and that an inter-change of professors and students of Architecture should be effected between the various schools of America, thus creating a real professional solidarity.

IX. Building Activities. That the Municipal Authorities should be desired to study the modification of the system in force, with a view to increasing the tax on unoccupied sites. That all materials and machinery required for building purposes, imported from abroad, should be allowed to enter the country free of duty, and that the Transport Tariff should be revised in order to reduce freight rates. That the Municipal Authorities should be desired to modify the present regulations respecting the hygiene and safety of dwelling houses, with a view to transforming workmen's tenements into flats. That the Public Authorities should be urged to fight the Trusts. That the training of competent workmen should be encouraged by the Government in their Industrial Schools ; and that private concerns founded for the exploitation of any industry necessary to the building trade should be encouraged. That an improvement in the mortgage system should be studied, special mention being made of the system in force in the Argentine Mortgage Bank. That the laws of the country and the Municipal regulations relative to building should be revised.

Using Local Resources.

CONTRIBUTED TO "HOUSING."

Time would be well spent if an Architect could make himself thoroughly acquainted with all the resources of the locality of his Housing Scheme in traditional methods of building, and of available and possible materials, before deciding on his designs and the construction to be adopted for the houses.

If brick or stone are not available locally and if any advantages over the ordinary brick or stone-built houses can be obtained by available local labour and materials, it will probably be found necessary as well as desirable to take steps to have the latter prepared in readiness for building operations, as soon as the estimates of cost have been approved and the drawings and specifications are completed.

GRAVEL.—It may happen that a bed of gravel lies under the site. In such a case, certain parts could be excavated for a supply of ballast without detriment to the general lay-out of the scheme. It might, indeed, be possible to make an attractive feature of such excavation by forming a terraced garden in the recreation ground attached to the scheme, a quiet and shady resting spot, or a play ground for the children. The gravel excavated could be screened to obtain aggregate of the necessary size for building in monolithic concrete, or for preparing concrete blocks. The larger stones could be set aside and used for ballast in road-making. Should it de decided to build with blocks, these could be moulded and left exposed to season under the weather. Where blocks are made on the semi-dry process, it is necessary to take particular care to see that they are kept in a thoroughly moist condition for some days after they are moulded, in order to ensure the thorough hydration of the cement. Cases have been known where blocks made by this process have hardened only on the outside, while their interiors remain full of loose material—the blocks having been allowed to dry in the sun, with the result that the slight amount of moisture applied for their mixing has quickly evaporated. Such blocks, naturally, have no strength, and are a source of danger. If an extruding machine is used the concrete can be mixed wet, and a thoroughly strong and non-absorbent block produced.

CHALK.—If the site is on chalk then this could be excavated and used as an aggregate for concrete in the same way as gravel. Chalk also lends itself to rammed construction in the form of concrete, the cement being mixed dry with the chalk and beaten solid in the wall, there being sufficient moisture in the chalk to hydrate the cement. A suitable proportion for this form of walling, which would require a thickness of about 18 ins., would be from 12 to 15 parts of chalk to one of cement. A good hydraulic lime could be used instead of Portland cement. A wall constructed of chalk requires protection from the weather, as the material has a great affinity for moisture. A coating of sand and lime would afford sufficient covering. An impervious coat, such as paint, or cement roughcast would be injurious, as in warm weather any moisture in the chalk would be drawn by the sun towards the outer face of the wall, and remain there ; then, when the weather becomes cold, it would become affected by frost and the outer surface would disintegrate. Where old chalk walls have been treated in this way, with the idea of affording protection, this has frequently been the result, whereas the walls which have not been so treated have remained sound.

EARTH.—In some districts suitable earth is found for making sunburnt and wind-dried building blocks, and a mixture of the same earth can be used for mortar and internal plastering of the walls. The blocks are moulded in simple bottomless frames, and are of sufficient consistency and stability to allow the frame to be lifted directly after it is filled, and place in position to receive the next block. The exterior walls can be finished in various ways, but cement roughcast should be avoided. Probably the best finish is a dressing of tar, with sand thickly thrown on while the tar is tacky. When the tar hardens the walls can be finished with distemper. The principal components of such earth are clay and chalk in varying proportions, the clay slightly predominating over the chalk. These earths can only be used economically when they are found naturally mixed on the site, for it is not often that separate chalk and clay deposits are found near each other.

CLINKER.—Clinker from the furnaces of refuse destructors, or other large undertakings, abounds in many regions, and provides a cheap and efficient aggregate for concrete when it contains not more than 1 per cent. of sulphur. It is essential however, for it to comply with the requirements of the Ministry's specification for concrete building, and be free from unburnt coal. So much rubbish is termed clinker that there is a well-founded prejudice against its use, and instances are on record when men on the work have burnt it in fires for cooking or warming up their food. If such material is passed by architects, either for monolithic concrete or slabs or blocks, trouble will inevitably ensue although it may not arise for a period of years.

TIMBER.—Where buildings are framed up in timber of either hard woods or deal and coated on both faces with cement plaster, it is necessary to ventilate thoroughly all parts of the timber construction allowing air to circulate freely or dry rot will occur.

It is now generally accepted that there are three conditions favourable to the development of dry rot, any two of which may produce it :—

(1) Dampness.
(2) A still atmosphere or lack of ventilation.
(3) A warm and even temperature for the propagation of the fungi.

Dry rot most frequently commences in the wall plate carrying the ground floor joists, and the fungi spreads from this along the joists and the under side of the flooring, especially if the latter is covered all over with oil-cloth or linoleum, thereby preventing any possible passage of air through the flooring. The cause of this is that the wall plate is usually set close to the wall, and receives on its upper surface a quantity of wet plaster droppings from the wall between the end of the flooring and the wall. The skirtings are then fixed, and favourable conditions set up for propagation of the spores. All sleeper walls and floor plates should be set in at least 3 ins. from the inner face of the external walls, so that the plaster droppings may fall clear on to the surface concrete, and both sides of the floor plate left exposed to the air.

Foreign Architectural Societies.

We are indebted to Mr. W. E. Woolley, M.S.A., hon. corresponding member of several French and Belgian architectural bodies, for the following list of foreign Architectural Societies. In France, the principal Societies are federated, and in America and Canada the local Chapters are linked up with the main body on the same lines that some of the British provincial Societies are allied to the Institute.

Belgium.—Société Centrale d'Architecure de Belgique, Hôtel Ravenstein, rue Ravenstein, Brussels. Association des Architectes de Liége, 62 rue Louvrex, Liége. Société Royale d'Archéologie de Bruxelles, 11, rue Ravenstein, Brussels. Société Royale des Architectes d'Anvers, at Antwerp. Société des Architectes de Verviers, at Verviers.

France.—Société Centrale des Architectes, 8 rue Danton, Paris (6e). Société des Architectes diplômés par le Gouvernement, Paris. Société Nationale des Architectes de France, Paris. Union Syndicale des Architectes français, Paris. Société Diplômés de l'Ecole spéciale d'Architecture, Paris. Association Provinciale des Architectes français, Paris. Société des Artistes français, Palais des Beaux Arts, Paris. Société française d'Archéologie, Paris. Société Académique d'Architecture de Lyon (Monsieur F. Françon, Architect, Officier de l'Instruction Publique Secretary). Mairie du Ve arrondissement, Lyons. Société des Architectes de la Seine-Inférieure et de l'Eure, Hôtel des Sociétés savontes, rue Saint-Lô, 40 bis, Rouen. Société des Architectes de Seine-et-Oise, Versailles. Société des Architectes d'Ille-et-Vilaine, Ecole des Beaux-Arts, rue Hoche, Rennes.

Spain.—Académie des Beaux-Arts de San Fernando, Madrid. Société Centrale des Architectes, Madrid. Association des Architectes de Catalogue, Carrer de Santa Agua, 25, Baixos, Barcelona.

Italy.—Societa degli Ingegneri e degli Architetti italiani, via delle Murette, 70, Rome.

Roumania.—For information respecting the Society of Architects established there, write M. Florian Pantelli, Architect, Calléa Dorobantilor, Bucharest.

Portugal.—Académie des Beaux-Arts, Lisbon. Société des Architectes portugais, Palais des Beaux-Arts, rue Barata-Salgueiro, Lisbon.

Sweden.—Société des Architectes et Ingénieurs, Stockholm.

Norway.—Société des Architectes et Ingénieurs, Christiania.

Venezuela.—Sociedad de Arquitectura y Construccion du Venezuela, Sur 11, No. 52, Caracas.

Argentina.—Société Centrale des Architectes, Buenos Ayres.

Austria.—Société des Architectes et Ingénieurs, 1, Eschenbachgasse, 9, Vienna.

Hungary.—Société des Architectes et Ingénieurs, Budapest.

Mexico.—Asociacôn de Ingenieros y Arquitectos de Mexico, Avenida Guarez 12, City of Mexico, Mexico.

United States.—American Institute of Architects, The Octagon, Washington, D.C. Engineers and Architects' Association of Southern California, 405, Hosfield Building, Los Angeles, California. Engineers and Architects' Club of Louisville, 1412, Stark's Building, Louisville, Kentucky.

Japan.—Kenchiku Gakkai (The Institute of Japanese Architects), 1.1 chiome yaesucho, Kocjimachiku, Tokyo.

Poland.—Stowarzyazenie Technikôw, Kolo Architektôw, Warszawa, Czackiego No. 5 (The Society (or Club) of Architects, Warsaw).

Excavation at Mycenæ.

Mr. A. J. Ware, summing up his report in the *Times Literary Supplement*, says :—Although, as we fully expected, our excavations have not yielded anything as sensational as the wonderful gold work found by Schliemann, we have nevertheless discovered many most interesting relics and gathered much new and valuable information about the history of Mycenæ. The first settlement here was made in the early Helladic period between 2500 and 2000 B.C.; then in the middle Helladic period, 2000 to 1600 B.C., it was already a flourishing city, and the earliest internments in Schliemann's royal graves are those of its last rulers at this time. In the succeeding first phase of the late Helladic period, 1600 to 1400 B.C., it was a very rich and powerful state, to judge by the great treasures found by Schliemann buried in the graves of its princes. Where their palace was is, as indicated above, not yet certain ; but at any rate Mycenae was still unfortified, for like the princes of Knossos their power was so great that they needed no walls to defend their wealth and their subjects. In the last phase of the age, the Mycenæan period *par excellence* between 1400 and 1100 B.C., the city and its dominions were ruled by a very strong and wealthy, though perhaps, less artistic dynasty, and mighty walls were built to make safe the central basis of the wide political power of the House of Atreus. The earlier princes of this dynasty erected the great Cyclopean walls with the Lion Gate, laid out the Grave Circle to protect the sacred sepulchres of the princes of the previous house, and replanned the whole city with its streets, houses, drains and cisterns, built the high domed tombs and probably also the palace. That the ruins of Mycenæ as one surveys them to-day are those of a city replanned and rebuilt on a vast and solid scale well over three thousand years ago cannot fail to impress our imagination just as much as it did that of Homer, who rightly describes Agamemnon's home as a well-built and broad-streeted city.

Stone for Westminster Abbey.

The *Irish Builder*, commenting on the recent correspondence in *The Times*, makes the following reference to the remarks of Mr. E. J. Sadgrove, President of the S.A.:—

"To a considerable extent we are in agreement with Mr. Sadgrove ; the great drawback, however, of the process of coating with thin liquids, at least with any of which we have had experience, is that the effect is temporary, passing off in a very few years. This, however, is not a fatal objection, as, if otherwise effective, the coating of stonework periodically, particularly where within easy reach, is not a very formidable undertaking. His other suggestion, however, of cutting away decayed stone and making up with a composition of the nature of concrete or stucco does not seem expedient, and appears little removed from the process of ordinary cement stucco. Used in moderation, in the manner of 'buttering' joints out on to the face of the stone, it is unobjectionable and apparently effective. It was very successfully used in the case of Birmingham Cathedral a few years ago, but when it comes to a question of cutting away the whole surface of the stone for a depth of several inches, it is quite a different matter, and, as we have said, differs little from lined out stucco work."

Transfers to the Fellowship Class.

Members of the Society elected previously to May 1st, 1920, who are over thirty years of age and have been engaged as Principals in the practice of Architecture for at least ten consecutive years, and are still so practising, or who are Fellows of the R.I.B.A., are eligible to make an application for transfer to the Fellowship class. Members elected since May 1st, 1920, have a similar privilege, but cannot exercise it for twelve months from the date of their election.

Candidates may make application on the prescribed form to be obtained from the Secretary, and must submit such further evidence of qualifications by way of drawings and photographs and other testimonies of professional standing and ability as the Council may in each case require.

The Annual Subscription of Fellows is £4 4s., and a remittance for this amount, returnable in the event of non-election must accompany the application. Members of the Society on election as Fellows do not pay the Entrance Fee of that class.

The first Annual Subscription of all Fellows elected before October 31st, 1920, will be credited to them to October 31st, 1921, so that Members transferred before the first-named date will not pay any increased subscription for the remainder of the present financial year, which is covered by their current membership subscription. The latter, if not already paid, must be discharged before an application for transfer can be considered by the Council. The Membership Committee will not meet during August or September and any applications deposited in the meantime will be dealt with when the Committee reassembles.

THE MEMBERSHIP CLASS.

Members who are not at present eligible to make an application for transfer to Fellowship may do so when they acquire the requisite qualifications.

The Annual Subscription of Members is now £3 3s., as from November 1st, 1920.

New Membership Certificates.

The new Certificates for Fellowship, Membership and Licentiateship of the Society have been approved by the Council, and will be issued to all Members (in any class), elected on and after July 15th, 1920. Other members wishing to exchange their Membership Certificates for new ones should return the originals to the Secretary with a remittance of five shillings, when a new Certificate bearing the original date of election will be issued in exchange in due course.

Members who prefer to retain their present Certificates are under no obligation to change them.

Architectural Scholarship.

The Architectural Scholarship, 1920, of the value of £10, is offered for Measured Drawings, and the Competition is confined to Licentiates and Students of the Society, who have paid their fees for the current year. The assessors are Messrs. Sir Charles T. Ruthen, O.B.E., Percy B. Tubbs and Professor Adams.

Candidates are required to submit at least three and not more than four sheets of Measured Drawings and Details, of some building of historic interest.

The Drawings are to be prepared between November 1st, 1919 and September 30th, 1920, and must be endorsed, "The Society of Architects' Architectural Scholarship, 1920," and delivered not later than 6 p.m., on October 1st, 1920, at the Society's offices, 28, Bedford Square, W.C.1.

The Scholarship will be disbursed by the Council on behalf of the holder, subject to their approval of the manner in which the Candidate proposes to utilise the Scholarship, or alternatively to the Candidate agreeing to such scheme as the Council may decide upon.

Should the scheme not call for the payment of so much as Ten Pounds (£10) the holder may receive the value of the balance in books or instruments.

The successful Candidate may be required, before the award is confirmed, to produce to the Council evidence as to age.

Students' Competitions.

GENERAL REGULATIONS.

(1) Drawings must be executed on white paper, imperial size and mounted on strainers or boards, and bear no motto or other mark of identification.

(2) Essays must be written (preferably typewritten), on foolscap single sheets one side only, and pinned at top left hand corner, and bear no mark of identification.

(3) Drawings and Essays must have attached to them a plain sealed envelope containing a declaration signed by the Candidate that the work is his unaided effort, and has been executed within the time allotted.

(4) Drawings and Essays must be delivered carriage paid at the Society's offices, 28, Bedford Square, W.C.1., not later than 6 p.m., on the day on which the Competition closes, together with any original sketches and notes.

(5) Drawings and Essays will be numbered as received and a corresponding number will be placed upon the Candidates' sealed envelope, which will not be opened until the Competition has been decided.

(6) The Society will not be responsible for the loss of or damage to any drawing or document submitted by Competitors, though every reasonable care will be taken of them.

(7) The Council reserves the right of exhibiting and/or reproducing any of the drawings or essays, and their decision on any point arising out of the Competitions is final and binding on the Competitors.

(8) A Candidate who does not adhere to the conditions and regulations in every particular will be disqualified.

(9) A Scholarship or Studentship may only be held once by the same person.

Quarterly Competitions.

These Competitions are open to Licentiates and Students of the Society who are under 23 years of age on the day the respective entries close, viz., January 31st, April 30th, July 31st and October 31st ; and who have paid their subscriptions for the current year. Ex-Service Students may, if necessary, deduct the time spent in H.M. Forces, between 1914 and 1919 from their present age.

The First Prize in each quarterly competition is of the value of £3 3s., with a Second Prize of the value of £2 2s., if more than ten Students compete. The Council reserves the right to vary or withhold the award, which will only be made if the work is, in their opinion, of sufficient merit. Successful competitors may be required before the award is confirmed to produce evidence to the Council as to age.

Quarter Ending, October 31st, 1920, Measured Drawings, consisting of one sheet to one-eighth scale, one sheet to half-inch scale, and one sheet of enlarged details. They must be delivered carriage paid, at the Society's offices, not later than 6 p.m. on Monday, November 1st, together with the original sketches and notes.

Assessors : MESSRS. PERCY B. TUBBS, L. SYLVESTER SULLIVAN, AND HARRY GILL.

Publicity.

JOINT SPORTS. A letter appeared in *The Builder* of August 6th from Mr. R. Langton Cole, offering to arrange a shooting match at Bisley with any Member of the Society, or with a team of four.

HOUSING. A letter from Mr. McArthur Butler giving his personal views on the proposal of the Cabinet Housing Committee for dilution of labour, etc., appeared in the *British Builder* for September.

CONTROL OF ARCHITECTURE AND BUILDING. In the *Morning Post* of the 18th August a letter appeared from the Secretary supporting the opinion expressed in a previous letter by Lady Askwith and other women associated with her, that State Aided Housing Schemes had been a failure, and urging that building materials should be de-controlled, private enterprise reverted to at the earliest possible moment, and subsidies cancelled. The Secretary pointed out that these were exactly the views of The Society of Architects made known long previously through the medium of the Press. This letter also appeared in the *Daily Telegraph* and the *Daily News*. Lady Askwith afterwards expressed to the Secretary her appreciation of his action.

A long letter from the Secretary was published in the *Morning Post* on the 21st August favourably commenting upon a leading article which had appeared in that paper, pleading for the removal of State control in the building industry.

The Secretary referred to the negotiations of the Society with the Office of Works and the Ministry of Health, and urged that while it might be necessary for the Ministry of Health to have a certain amount of supervisory control, the Office of Works should have nothing to do with the Housing programme, but the whole of the work connected with the lay-out and design and the supervision of the buildings should be placed in the hands of independent practising architects in the various localities. It was very encouraging for the Society to find its views corroborated by the opinions expressed in the leading article referred to.

The Architects' and Builders' Journal, of August 18th, inserted a letter from the Secretary, commenting upon a statement in a previous issue, that H.M. Office of Works was taking in hand many Housing schemes for Local Authorities, and was providing not only the materials but also the architects, and that the Department had effected a great saving by employing direct labour. The Secretary advocated the removal of State control in the building industry and the restoration of private building enterprise in housing under the auspices of unofficial architects; and suggested that the scrapping of Government Housing Departments and bodies would result in a still greater saving of expense. The Secretary has been invited by other papers and by individuals to deal with the matter in more detail.

STONE FOR WESTMINSTER ABBEY. The correspondence in the *Times* on the question of the preservation of the stone used in the construction of Westminster Abbey included a long letter from Mr. Sadgrove, the President of the Society. The opinions expressed were the subject of a leading article in the *Times*, and the correspondence was reproduced in the leading professional journals.

WAR MEMORIAL TABLET. A paragraph from the Journal stating that the tablet containing the names of Members who fell in the late war is about to be erected at the Headquarters of the Society in Bedford Square, appeared in the *Times*, the *Daily Telegraph*, the *Morning Post*, and in the professional journals.

FOR AND AGAINST DILUTION. Eight letters appeared in the *British Builder* for September under this heading, seven of which were contributed by Members of the Society, the majority of whom were opposed to the principle of compulsory dilution and a guarantee of five years continuous employment.

FACTORY DESIGN. A letter from the Secretary commenting upon an article in the *Times Trade Supplement*, by Mr. Frank B. Chase, on "Factory Planning and Organisation," appeared in the next issue of the *Supplement*. The Secretary supported Mr. Chase's plea for worthy architectural treatment, which bore out the views frequently expressed by the Secretary, that good architecture is a commercial asset of the greatest possible value.

PAYMENT ON ACCOUNT OF ARCHITECTS FEES. In the *Local Government Journal* a letter appeared from the Secretary referring to the case of the Northallerton U.D.C., who had applied to the Ministry of Health for authority to make a payment on account to the architect of their Housing Scheme, and who had received a vague and unsatisfactory answer. The Secretary pointed out that the conditions of engagement of architects referred to in General Housing Memorandum No. 31 issued by the Ministry of Health in agreement with the Society and the R.I.B.A., provides for such payments, and therefore there was no reason why the Ministry of Health should not have returned a definite answer.

SCALE OF CHARGES. In the *Coventry Herald* of the 28th August, a report of the proceedings of the Coventry Board of Guardians showed that Mr. T. F. Tickner had based his professional fees on the scale agreed tby the Ministry of Health with the R.I.B.A. and the Society, and that the Housing Committee had agreed to pay the architect on that scale.

NEW BUILDING WAGE CLAIM. A letter from the President of the Society appeared in the *Times*, in support of a statement by Mr. Arthur Keen, the Hon. Secretary of the R.I.B.A., foreshadowing a sad time for Labour generally in the near future, and a rude awakening for the hot-headed extremists if they press their insatiable wage demands any further.

"CA' CANNY." A paragraph quoting the protest of the President of the Society against the doctrine of "Ca' Canny," in his letter to the *Times*, appeared in the *Dundee Evening Telegraph, Glasgow Bulletin,* and other evening papers.

NOTES FROM THE MINUTES. Extracts from Notes from the Minutes of the Society's meetings, lists of competitions banned, and other news relating to the Society, have appeared from time to time in the professional journals.

TO THE EDITOR,
"THE JOURNAL OF THE SOCIETY OF ARCHITECTS."

Norwich Housing Exhibition, Agricultural Hall, Norwich, October 1st-16th, 1920.

SIR,

In connection with the above Exhibition, the Executive of this Union has arranged to display on the stage of the Assembly Hall (first floor) an exhibition of architectural and survey drawings, more particularly with a view to bringing before provincial students and others good examples of professional draughtsmanship.

We cordially invite any Member of your Society resident in or near or visiting Norwich to call and inspect this Exhibition.

CHAS. McLACHLAN,
Hon. General Secretary.

Architects' and Surveyors' Assistants' Professional Union,
33, Tothill Street, Westminster, S.W.1.
September 9th, 1920.

Correspondence.

The Editor,
"The Journal of The Society of Architects."

Sir,

THE STABILITY OF WALLS.

The report on the "Stability of Thin Walls" by the "Building Materials Research Committee," as quoted in your issue for September, 1920, gives food for reflection. The names of the Committee are not given, and the value of the report must therefore be adduced from internal evidence. The first point that strikes one is the fact that a half brick wall in lime mortar was tested for stability 24 *days* (!) after being built. We often hear the expression "green" brickwork, or brickwork still "green," but the Committee must have been still more verdant if they expected decent results from lime mortar 24 days old. The walls appear to have been 3 ft. 6 in. wide, and the pillars 14 in. wide by $2\frac{5}{8}$ in. to $4\frac{1}{2}$ in. thick and 8ft. 6 in. high, but what meaning can one attribute to the final figures of the very first item "Stock bricks 3 to 1 cement mortar wall $4\frac{1}{2}$ in. thick (9 × 9 × 9)"? The walls seem to have been tested for "horizontal pull" (transverse load or bending moment in centre), while under a top load (or end thrust) of 1 ton per foot run, but in these cases they are given as 3 in. to 6 in. thick by 8 ft., 6 in. high, and presumably 3 ft. 6 in. wide. If the 3 in. to 6 in. means thickness, how was it done with the materials described? To compare some of the figures, we find the first item gives 638 lbs. per sq. in. for crushing strength of stock brick pillar with top load only, and the addition of a horizontal pull of 895 lbs. is required to cause failure with a top load on the walls of double the previous amount. The variation in age of the different materials at the time of test makes fair comparison of the different items impossible.

Without more enlightenment, the published results appear to be absolutely useless to the ordinary practitioner. Of course, the Government would only appoint experienced scientific men on such a Committee, who not only would know something of what had been done before in the same line, but would also know something of elementary mechanics. We may therefore hope that some benefit from their labour may in time be discovered.

We must, in conclusion, give them credit for an inkling of their duties when we find italicised in the report "The high percentage strength is to some extent due to the care exercised in centring the column under test."

Yours faithfully,
X.

Sir,

ADVANCEMENT OF THE BUILDING INDUSTRY.

I am directed by my Council to forward you the enclosed list of the Members of this Association and to suggest for your consideration the following:—

These Members, through the organisation of the London Master Builders' and Allied Industries' Association, have earnestly co-operated to protect the building trade in every direction whenever necessary.

The interests of Architects and Surveyors in this as in many other respects, are identical with those of builders, and it is the desire of the London Master Builders' and Allied Industries' Association to work as closely as possible with the architectural and surveying professions for the general advancement of the building industry.

By employing, as contractors, members of this Association only, Architects and Surveyors will be serving the interests of their clients and themselves, and will also strengthen the builders' organisation in its efforts to prevent irregular practices, which from time to time form the subject of complaint and conference between architects, surveyors and builders.

My Council, therefore, suggests when you have given this matter your consideration, you will recognise the protective services of the organisation and the desirability of recommending the Members of your Society to invite tenders from federated builders only, and for that purpose I shall be pleased to supply you with further copies of the lists of our Members if you will kindly advise me as to the number you will require.

W. J. RUDDERHAM,
Secretary.

London Master Builders' and Allied Industries' Association,
48, Bedford Square, W.C.1,
14*th June*, 1920.

Notes from the Minutes.

Victory Scholarship. The donations to date amount to £550. It is hoped that the liberality of Members and others in sympathy with the objects of the Scholarship will provide the balance of £1,450 required to complete the Foundation Fund.

Housing Fees. As a result of Sir Charles T. Ruthen's negotiations with the representatives of the Ministry of Health, the points reserved for consideration have been settled, and the Housing Scale of Charges as amended have been printed in the Journal of the Society. The Council have expressed to Sir Charles Ruthen their appreciation of his services.

Premises. The decorative repairs to the Society's premises are practically complete. The outside and part of the interior has been done by Messrs. W. H. Ball, Ltd., of Lamb's Conduit Street, W.C., and the special decorations to the Council Chamber, staircase and hall, by Messrs. Bovis, Ltd., the materials having been provided by Messrs. Harland and Sons, of Merton. The electric light centre fittings for the Council Chamber have been specially made by Messrs. Faraday, of Wardour Street, W., the window cords have been replaced with steel chains by Messrs. Rhodes Chains, Ltd.; Messrs. Shingleton, of South Kensington, are supplying the blinds and curtains, and Messrs. Ronuk, Ltd., are repolishing the floors. The extension of the Atelier has been carried out by Messrs. William Downs, Ltd., of Hampton Street, S.E. The special electric lighting fittings were supplied by Messrs. Higgins and Griffiths, and the roof light glazing was the work of the British Challenge Glazing Co., Ltd.

Unification. The report of the delegates to the meeting on May 20th, showing that the President, Mr. Sadgrove, had been appointed Vice-Chairman of the Executive Committee, on which Sir Chas. T. Ruthen, Mr. Noel D. Sheffield, and Mr. McArthur Butler also represented the Society. The Executive Committee had been charged with the duty of preparing two schemes for the consideration of the main Committee, one based on Amalgamation and the other on Federation.

Assistants' Welfare Committee. Arrangements have been made to receive a deputation from the Architects' and Surveyors' Assistants' Professional Union on October 14th, to hear their views in amplification of resolutions which the Union have passed relating to minimum salaries and other matters.

Trehearne-Norman Prize. Messrs. Trehearne and Norman, Fellows of the Society, of 83, Kingsway, W.C.2, have presented the Society with a sum of £200 Consols as the nucleus of a fund to provide an award for the encouragement of architectural training in subjects relating to " Practice."

Industrial Council for the Building Industry. Since the Society appointed two representatives on the Industrial Council, new Rules have been approved, under which the Society is invited to nominate four representatives. The selection of the representatives has been deferred until the election of the new Council, the President having the right in the meantime, if necessary, to nominate the representatives.

Building Trades Exhibition, 1921. Preliminary arrangements have been made for the Directors of the Exhibition and representatives of the Society and of the R.I.B.A. to meet and discuss an extension of the Society's activities at the 1920 Exhibition, with a view to organising the Architects' Club and Conferences on a larger scale in 1921.

Annual Subscriptions.

All outstanding subscriptions should be paid before October 31st, when the books close for the Annual Audit.

NEW SCALE OF SUBSCRIPTIONS.

On November 1st, 1920, the increased annual subscriptions come into force as follows :—

FELLOWS	£4	4	0
MEMBERS	3	3	0
LICENTIATES	2	2	0
STUDENTS	1	1	0

BANKERS' ORDERS.

Members (in any class), who have given their Bankers' orders for payment are asked to be so kind as to have the orders corrected to the increased amount before November 1st, 1920. If other members will adopt a similar method of payment where possible, it will greatly facilitate the work of the Society. Bankers' order forms may be obtained from the Secretary.

Dry-Rot in Timber.

The Society is making further researches into the question of dry-rot in timber, and for this purpose requires specimens of indoor woodwork in two conditions :—

(1) When supplied by the builder for immediate incorporation in the house or building, and

(2) When taken from a house after having been in this for a number of years.

Members who are willing to supply such specimens, which should be small in dimensions, are asked to communicate with the Secretary of the Society as soon as possible.

Special General Meeting.

A Special General Meeting of The Society of Architects will be held at 28, Bedford Square, W.C.1., on Thursday, October 14th, 1920, at 8 p.m. to receive the report of the Scrutineers on the ballot for Officers and Council, and to transact other business.

A paper will afterwards be read by Mr. Clarence M. Lyman (U.S.A.) on "Methods of Central Heating for Small Houses." The meeting is open to Members and their friends, including ladies.

Papers for Session, 1920-21.

The Council of the Society invite offers of, or suggestions for, papers on questions of professional interest for the forthcoming session. The invitation is not confined to Members of the Society, but is extended also to the Members of other Allied arts, crafts, sciences and industries.

The meetings are held at 8 p.m., at the Society's Headquarters, 28, Bedford Square, W.C.1, on the second Thursday in the month from November to May. The November and January meetings are allotted to the President's Address and the Annual Meeting respectively. The other dates are open for allocation as may be arranged.

Current Competition Conditions.

The Society has filed for reference particulars of the following current Competitions :—

Corsham, *Earby, *Hackney, Liége (Belgium), *Wakefield, and *Weymouth (War Memorials), Liverpool (Secondary School), Glasgow (High School), Burton-on-Trent (Girl's School), and Barcelona (New Club Premises).

Those starred are barred to Members of the Society owing to unsatisfactory conditions.

Lantern for Sale.

The Society has for disposal a mahogany body Optical Lantern, by W. C. Hughes & Co. Double extension front ; double achromatic projector lens, 18 in. focus, 4½ in. condenser, 2½ in. diameter objective ; with 100-volt self-regulating arc lamp and resistance for same, the whole complete in wooden case. It may be seen by appointment at the offices of The Society of Architects, at 28, Bedford Square, W.C.

Addresses Wanted.

Members.

The Society's Journals sent to the following Members, etc., have been returned through the post marked "Gone away." The Secretary will be glad to hear from anyone who can put him in communication with any of these Members.

C. A. Aish (London).
G. A. Birkenhead (Vancouver).
J. E. Broderick (Montreal).
W. G. Campbell (Johannesburg).
A. E. Chasemore (Upham).
F. Clemes (Grimsby).
P. Rogers Cooke (Germiston, South Africa).
E. N. Cubitt (Brentwood).
G. W. Davies (Grimsby).
J. L. Donnelly (Dublin).
S. A. Hall (London).
J. M. Hatfield (Barnes).
R. R. W. Hyde (Worthing).
H. Jackson (London).
A. E. King (Mansfield).
W. E. Knapman (Exmouth).
W. Langcake (London).
A. J. Lewis (Southsea).
J. N. K. McKilliam (London).
A. C. Payne (London).
R. T. Perry (Vancouver).
Ernest Rose (Rhodesia).
C. D. Rutter (Wrexham).
J. B. Sanders (Crawley).
P. H. Solon (Walsall).
C. F. Stevens (London).
D. G. Tanner (Polegate).
O. M. Thorpe (Chiswick).
T. G. Williams (Liverpool).

Students.

A. C. Bedington (Newquay).
H. Fyvie (Pretoria).
W. M. N. Haigh (Baildon).
Arthur Oates (South Shields).
W. G. Parkin (Hampstead).
C. H. Roberts (London).
J. R. Thomas (Colchester).
S. E. Urwin (Birmingham).
R. C. Vander Schyff (Pretoria).

Victory Scholarship Fund.

We acknowledge with many thanks contributions from the following since the issue of the last list :—

Mr. T. F. Tickner, Mr. E. J. Hamilton, Mr. A. F. A. Trehearne, Mr. C. F. Norman, Mr. W. E. Kelly, Mr. H. E. Davies, Mr. Ellis Marsland, Mr. A. J. Taylor, Mr. G. H. Wenyon ; Messrs. R. W. Blackwell, Alliance Electiric Co., Ltd., and Emanuel and Sons, all *per* Major C. F. Skipper; Mr. W. Egerton, Mr. E. J. W. Hider, Mr. H. C. H. Monson, Mr. W. J. Martin, Mr. A. Burnett Brown, Mr. George H. Paine; and Messrs. Walter Lawrence and Son, and Mr. B. A. Williams *per* Mr. Thos. Wallis.

The total amount received to date is £550.

For the Information of Members.

The Library. Gifts of books on Architecture and allied subjects, and Donations to the Library Fund are invited. Books from the technical circulating library are sent through the post, or may be obtained on loan personally by Members on application. The Rules relating to the use of the Library are published in the Year Book, and a copy of the Catalogue may be obtained (free of charge) from the Secretary.

NOTE. The Library is closed for the time being, pending the completion of alterations and decorations to the premises. Notice of re-opening will be given in these columns in due course.

Book Reviews. The Secretary will be glad to receive the names of Members who will undertake to notice books sent for review. They are asked to mention the subject with which they would prefer to deal.

Professional Appointments. Members seeking appointments or requiring Assistants should notify the Secretary of their requirements, so that they may be entered on the Register. There is no charge.

Subscriptions. Annual subscriptions are due and payable in advance on November 1st of each year, and Members are invited to made use of the Bankers' Order Form method of payment where possible. A form for this purpose may be obtained from the Secretary.

The Examinations. The qualifying entrance examination for Membership is held in April and October. The Syllabus is under revision, and details of the new scheme will be issued in due course.

Awards and Scholarships. Particulars of the Victory Scholarship, the Travelling Studentship, the Architectural Scholarship, and other competitions are announced in the JOURNAL from time to time.

Professional Advice and Defence. The rules and regulations for legal assistance to, and professional defence of, Members of the Society are set out in the Year Book, together with the Society's Code of Professional Ethics.

Publicity. The Society has a special department for securing publicity in the Press and elsewhere relating to matters in which the Society and its Members are concerned. Members can greatly assist the work of the Society by keeping the Secretary supplied with cuttings from local newspapers and other information of interest to architects in general and Members of the Society in particular.

Beaux Arts Atelier. As soon as the extensions to the Society's premises are completed the Members will be informed of the advantages to be derived from entering the Atelier and the qualifications necessary for doing so.

Changes of Address. Members are requested to notify the Secretary at once of any temporary or permanent changes in their address, so that the Registers may be kept up-to-date and the difficulties avoided which arise when communications to Members are returned through the post.

Masonic Lodge. The Lodge meets on the second Wednesday in November, January, March and May, at the Holborn Restaurant. The present Master is Major T. Stewart Inglis, D.S.O., R.F.A., and the Secretary is Mr. C. McArthur Butler. Visiting "members" from other Lodges are always welcome.

Communications. All communications should be addressed to

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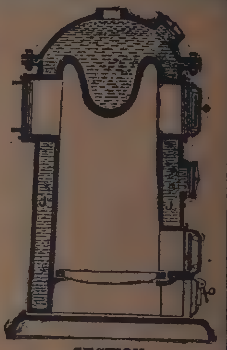

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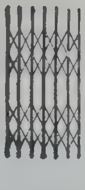

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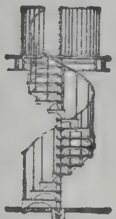

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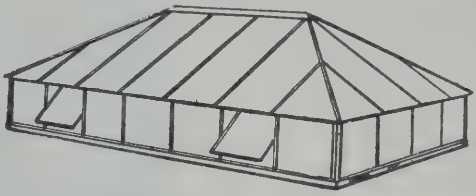

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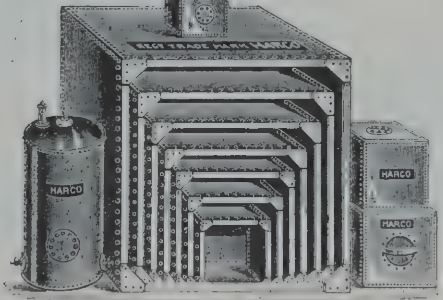

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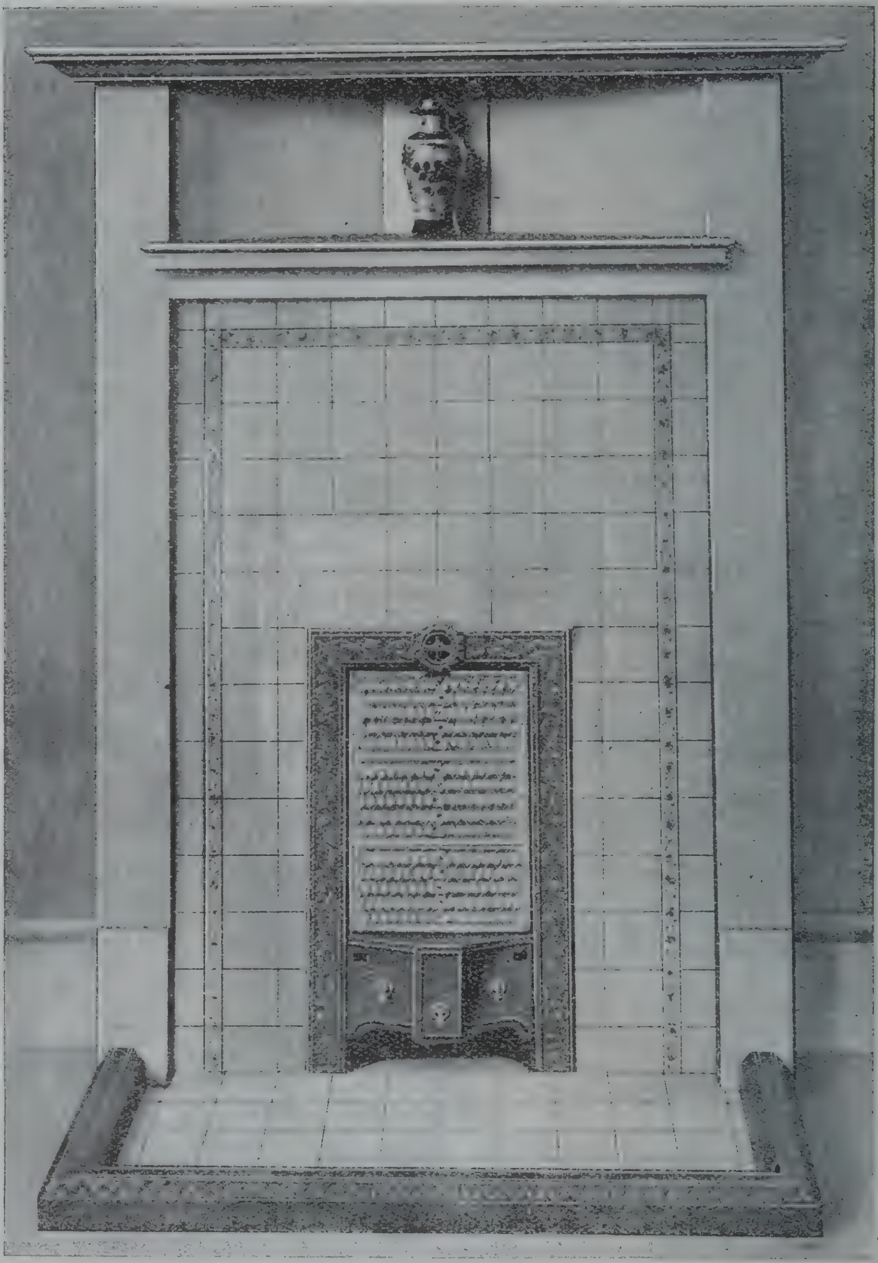

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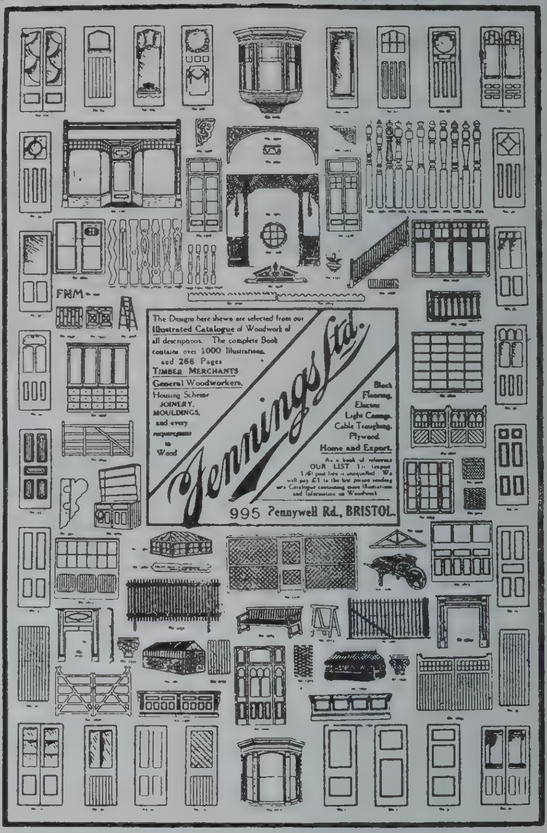

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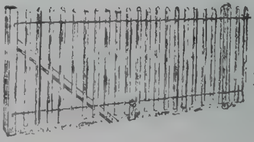

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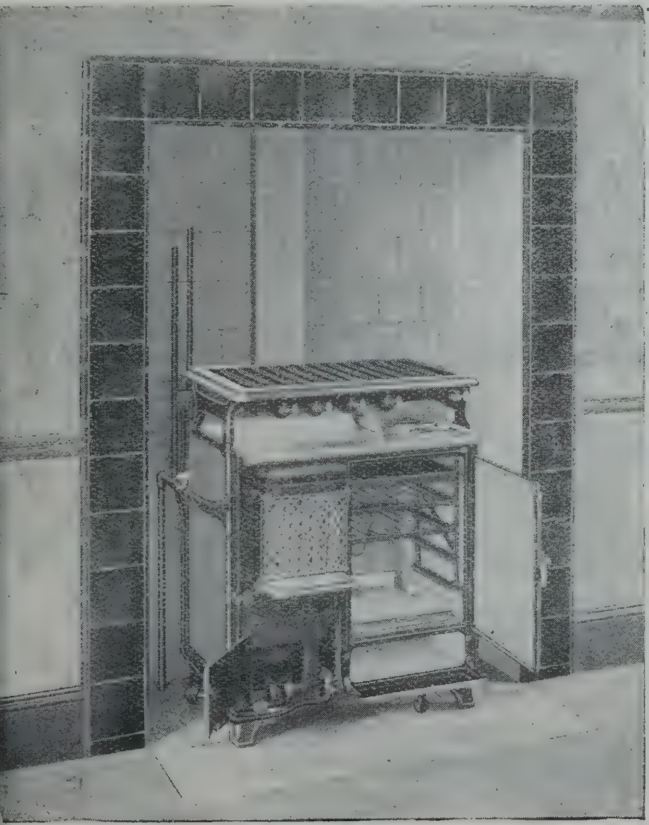

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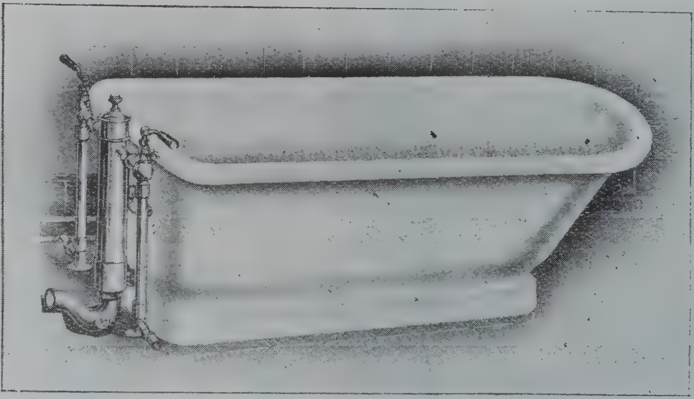

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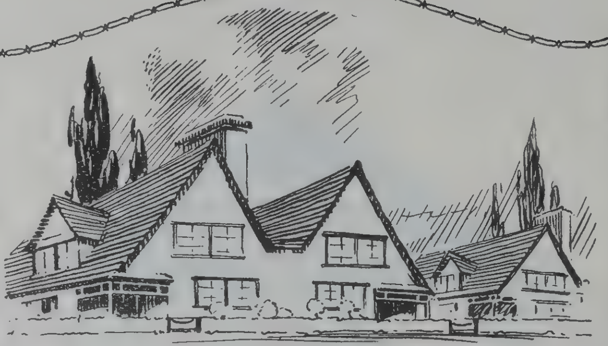

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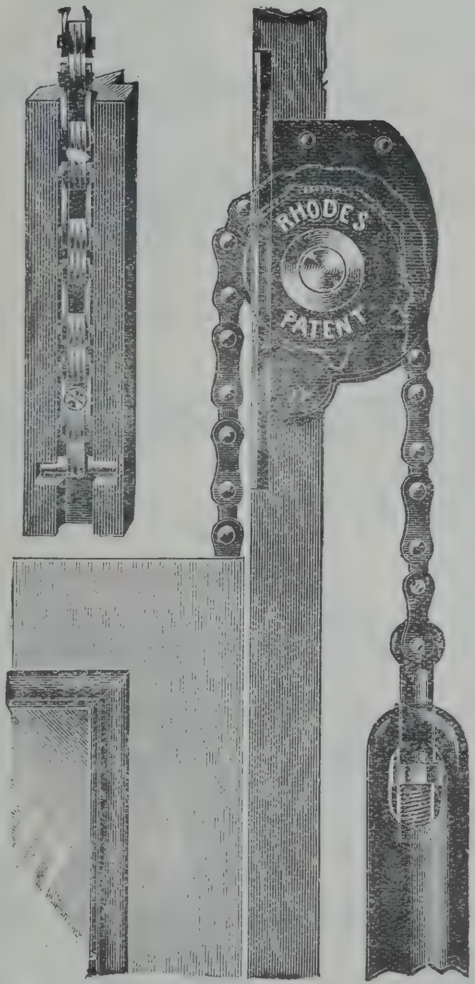

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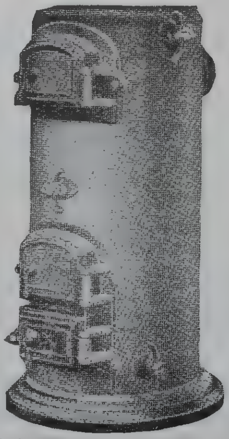

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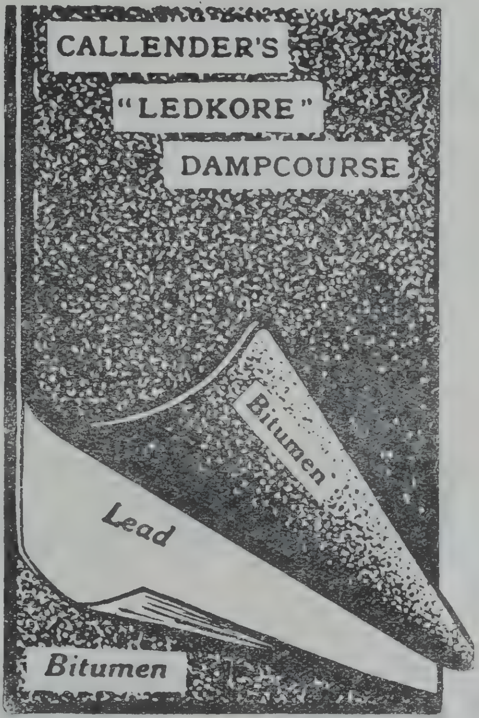

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